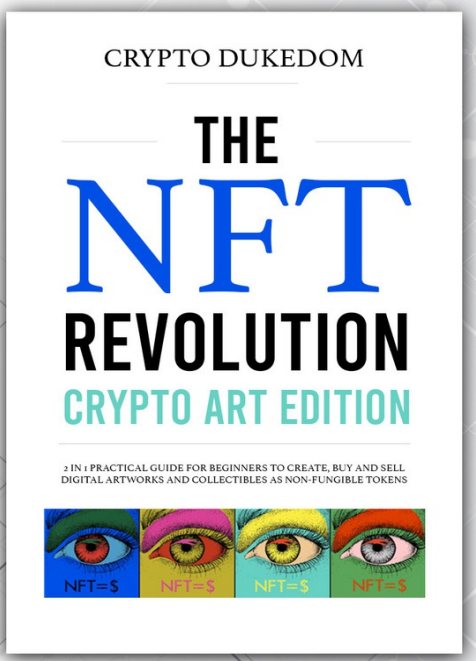
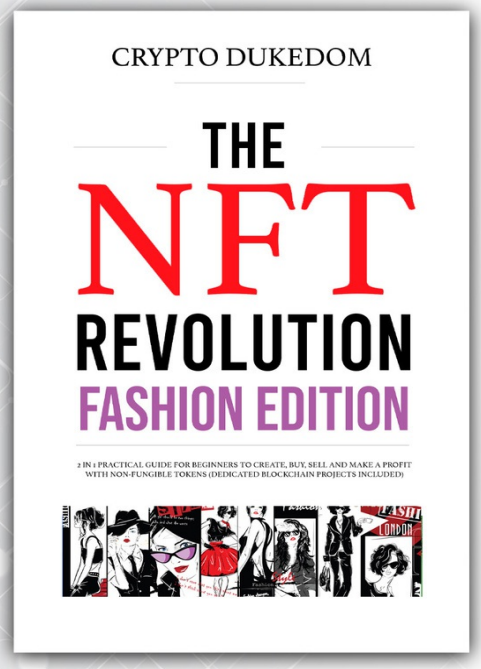
THE NFT REVOLUTION 2022

2 IN 1

BASIC GUIDE FOR BEGINNERS + CRYPTO ART & FASHION EDITION.
CREATE, BUY, SELL AND MAKE A PROFIT WITH NON-FUNGIBLE TOKENS.




CRYPTO DUKEDOM
THE
NFT
REVOLUTION
FASHION EDITION
2 IN 1 PRACTICAL GUIDE FOR BEGINNERS TO CREATE, BUY, SELL AND MAKE A PROFIT WITH NON-FUNGIBLE TOKENS (DEDICATED BLOCKCHAIN PROJECTS INCLUDED)
LONDON

CRYPTO DUKEDOM

VISIT…

THE
NFT
REVOLUTION 2022
- 2 in 1 -

BASIC GUIDE FOR BEGINNERS + CRYPTO ART & FASHION EDITION

Create, Buy, Sell And Make a Profit With Non-Fungible Tokens

CRYPTO DUKEDOM

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INTRODUCTION

"*The technology is real. The impact is real and permanent."* That's a statement from billionaire investor and NBA franchise owner Mark Cuban, who is at the forefront of the explosion of interest in blockchain and non-fungible token technology. According to Cuban, the impact of this monetary technological shift is measurable and lasting. Once stabilized, it will disrupt how money is invested, collected, played with, and made.

Whether it's sports, entertainment, gaming, art, music, or fashion, non-fungible tokens are a perfect fit for any industry or field. This revolutionary technology has been talked about increasingly in the past few months, but not everyone knows about it yet, and its potential has not yet been fully imagined.

Non-fungible tokens, more simply called NFTs, are a unique digital resource. Indeed,

what the non-fungible token creates is a verifiable digital scarcity, which results in unique value.

Those who already understand a bit about blockchain, cryptocurrencies, and tokens know what we are talking about and will be able to untangle this type of technology better. In simple words, you could say that a fungible token consists of digital information recorded in a blockchain that grants the object a particular right that is recognizable as ownership. Tokens are, in essence, a certificate of authenticity, while “fungible” refers to the replicability and interchangeability of cryptocurrencies such as Bitcoin, the cryptocurrency created in 2009, or even a fiat currency (dollar, euro, pound, etc.). Non-fungible tokens are distinguishable precisely by their non-fungibility—that is, their non-interchangeability. They are able to provide a unique representation of a virtual asset and are authentic, unique, and encrypted.

An image in a .jpg file, for example, can be replicated countless times, but the token

cannot be, and it is the token itself that gives value to the image, enabling it to bought, sold, and collected like the finest works of art. Therefore, the purchased token is a certification of the media or digital work, not the work itself. NFTs, consequently, give a digital creation all the rights it would have as a physical work: rarity, authenticity, and ownership. That's what makes an NFT so extraordinary. Non-fungible tokens are changing the digital world forever. It's a bit like an artist creating a work of art for just one person: many might admire it on the web and appreciate its beauty, but only the person who buys it holds the rights of ownership, including the ability to resell it and make a profit.

Talking about NFT is a bit like referring to a parallel universe that is growing exponentially. Indeed, recent depictions of NFT use words like “mania” and “bubble” to describe the situation.

In 2020, the trading volume of the NFT market exceeded $250 million, a four-fold increase over 2019, and they are continuing

to grow by the minute even at the time of this writing. It's a world that has quickly garnered the attention of celebrities, international artists, sports figures, digital creatives, entrepreneurs, influencers, and many more.

Several striking cases have made their way around the web. For instance, it's hard not to have heard of how the NBA's NFT platform, NBA Top Shot, sold a clip of Lebron James' formidable dunk for$ 208k or how Lindsay Lohan sold a photo of herself for +$50k dollars and donated the proceeds to charity. The same celebrities who have taken an interest in non-fungible tokens have brought them into the limelight by making them mainstream and grossing record amounts. Besides, NFTs can be found in virtually every industry, from business and social media to music, art, sports, and entertainment.

The exclusivity of digital files has resulted in them selling for millions of dollars. Following the granular price tiering principle, an artist sells their most exclusive works at higher prices and subsequent works at lower prices. Moreover, NFTs are so great precisely

because of their ability to remove all intermediation: artist and buyer are in direct contact in a whole new way.

Grimes, famous synth-pop star, singer, and girlfriend of well-known entrepreneur Elon Musk, earned $5.8 million in less than 20 minutes by selling her NFTs on Nifty Gateway, one of the most popular marketplaces. The collection was titled War Nymph. It features winged children sporting javelins, tattoos, and elf ears in a dystopian world. The singer first announced the auction of her NFTs in a tweet, writing simply: “Enter the void.” With respect to this digital world, she declared: "The digital realm makes the realm more rare and precious. It also offers escapism and perfection. Sometimes I want imperfection, real life. Sometimes I want perfection."

Like her and also in the music business, Kings of Leon recently got into the craze. They released their album *When You See Yourself* as an NFT on the Yellowheart platform. The album is available to everyone in traditional formats, but those in NFT were

sold for $50, each offering different perks: digital downloads, concert tickets, and a limited-edition vinyl copy of the album. In this way, digital becomes physical and vice versa, creating a unique and original offering.

Just over a year ago, Twitter founder and CEO Jack Dorsey also auctioned off the NFT of his first tweet from 2006 in which he declared "Just setting up my twitter." It sold for $2.9 million, and he donated the proceeds to charity. The platform on which he sold his NFT is Valuables by Cent. If even the tech enthusiast and founder of a platform as popular as Twitter has entered the world of NFT auctions, we can assume there’s some potential there.

The most glaring case in point? Beeple, a digital graphic designer originally from South Carolina, kick-started a real crypto art movement by selling his work titled *The First 5000* days for $69.3 million, the highest quote ever achieved by a digital artist. The famous art auction house Christie's is relying on MakersPlace to support the new digital trend, seeing great opportunities for a world

of art in which even the younger generations, accustomed to digital creations, can invest.

How does an intangible good that everyone can see reach such a value? How and who can create and sell their works in NFT? What applications and results can they generate in the future? Is this a stable market in which to invest?

In this guide, we will answer these and other similar questions as we provide a detailed introduction to and analysis of non-fungible tokens: what they are, how they are created, what is their market, what are there possible uses, opportunities, merits, and demerits, and more, including famous collections and artists as well as case studies of a phenomenon that is as revolutionary as it is recent.

The possibilities of selling, collecting, investing, and earning are what make non-fungible tokens a compelling technological opportunity. Moreover, this opportunity will not be extinguished, as it is likely to find more and more markets and uses. So, without further ado, let's begin our clear, simple,

thorough, and beginner-proof analysis of NFTs.

BRIEF HISTORY

Although the success of NFTs has exploded relatively recently (thanks largely to the record $69.3 million sale of the digital artwork by artist Beeple, stage name Mike Winkelmann, which was hammered out by Christie's auction house at 4 p.m. on March 11, 2021), NFT is not a new technology. Following the emergence of Bitcoins, projects have sprung up that take advantage of the particular internal protocol of the Bitcoin blockchain. By closely monitoring the origin of a given bitcoin, a set of coins can be colored to distinguish it from the rest. These coins can then have special properties and a value independent of the bitcoins' face value. The use of these protocols has generated tokens that have been called "colored coins." These colored coins, born around 2012-2013, were actually the

first NFTs in history.

The functioning of colored coins was not very different from non-fungible tokens as we know them: their purpose is to represent a multitude of resources within metadata. The main reason why colored coins were invented is to open the door to develop new features in Bitcoin. The ability to create tokens linked to things in the real world and for these to be supported by a blockchain network presented a unique opportunity. Colored coins used the transaction model called Genesis and paved the way for new experimentation, especially in terms of placing real-world assets on distributed ledgers.

In 2014, Counterparty, an open-source platform where peer-to-peer applications can be developed, was born. Initially, these applications were oriented to the financial sector on the Bitcoin blockchain. Currently, the protocol implements and supports the creation of assets, the issuance of bonds from these assets, and the trading of assets using a decentralized market. Its open-source protocol allows you to write smart contracts,

turning many real world actions into a code that works automatically without the need for intermediaries and is very secure.

Counterparty was born precisely because of the desire to develop all the resources related to blockchain and enabled by colored coins. The founders, Robert Dermody, Adam Krellenstein, and Evan Wagner, based everything on a token called XCP. Counterparty's idea became very famous in 2014, resulting in the first blockchain-based game ever created, Sells of Genesis, and trading card games like Force of Will being invented the following year. After that, memes moved into the blockchain sphere, specifically in 2016 with "Rare Pepes" which are images of Pepe the Frog, the green anthropomorphic frog with a humanoid body from Matt Furie's comic book *Boy's Club*. This moment seemed to open the doors for people to see the possibility of developing a substantial market around unique digital pieces.

The decisive year for the birth of the first NFTs was 2017, when Ethereum began to

gain importance, first by announcing its own collection of unique Pepe or Peperium memes and then, definitively, with Cryptopunks.

The breakthrough occurred when John Watkinson and Matt Hall realized that they could create unique characters generated on Ethereum's blockchain. The characters were limited versions, and no two characters were the same. This was the birth of the CryptoPunks project.

Watkinson and Hall decided to allow anyone with an Ethereum wallet to claim a Cryptopunk for free, and so it happened that the characters were all claimed. Following their success, the first blockchain-based virtual game that allows players to adopt, breed, and trade virtual cats was also born. It's called Cryptokitties and is perfect for those who loved to dabble with Tamagotchi in the 90s.

This project soon went viral and made headlines in major media outlets because people were making insane profits by selling digital kittens for as much as $100,000. Soon

after, creators of Cryptokitties developed the company Dapper Labs, increasing business and interested investors even more.

Today, there are a lot of projects out there based on NFTs. For example, thanks to the virtual wallet Metamask (among the most popular), you can import your virtual coins and change them in Ethereum, the currency (cryptocurrency) of NFT. After that, you can buy tokens from the most flourishing markets and through different marketplaces, of which the most famous is OpenSea. Ethereum's platform is based on various technical standards for different types of tokens that allow interactions to work properly. The most common standard is ERC20, where ERC stands for Ethereum Request for Comment. Today, NFTs are based on the ERC721 standard, which was invented specifically to track the movements and properties of individual tokens and allow them to be recognized.

The history of NFTs is recent and winding, and recognizing the multitude of projects and enormous turnover, we can safely assume

that growth will be exponential. Investments in unique digital products are increasingly rapidly. Collectors have made it a real craze. The market is increasing its reach by implementing NFTs that correspond to the needs of buyers who can enjoy the returns of their investments.

NFT - KEY CONCEPTS

NFTs have reached such a level of fame not only due to the celebrities who participated in creating, buying, and selling them, but also due to something intrinsic to NFTs themselves: their ability to create value. To fully understand what NFTs are, you don't just need to know about the technology they are based on; you need to understand a few key concepts. This knowledge will reveal the beauty of NFTs, and you will be amazed at their impact on everyone's lives and their future direction.

To better understand the topic, we will try to start with the basics and review each essential term thoroughly.

OBJECTIVE VALUE VERSUS SUBJECTIVE VALUE

People attach value to many things, including objects, activities, goals, careers, and more. If you were to ask a group of people what a valuable experience or thing is to them, you would receive a wide range of answers, perhaps including a luxury sports car, a nice walk on a dream beach, being with friends, listening to good music, etc. The common thread that runs through these items is desire. What tends to be considered valuable is thought of that way because of the intrinsic desire that is felt in achieving or satisfying it. We don't desire objects, experiences, or anything else because of the feeling these create but because of the desire they satisfy. And desire creates subjective value.

The concept of value is intimately tied to preferences, which tend to be arbitrary and depend on what a given person believes, desires, or perceives. Through desires, the reasons for pursuing pleasure are perpetuated. Moreover, the more desires are satisfied, the more value is produced. Subjective value, therefore, is the value that each individual is willing to assign to a good. Thus, it is

arbitrary and temporary. Try to think about it: an urgent necessity can increase the value of a good exponentially with respect to what might be considered normal or average.

Trying to define objective value is not as simple. Although we can speak of the temporary and not arbitrary objectivity of prices (where the price of a good is not fixed by a central power), there is no reasonable way to determine value objectively. Thus, where not established in a coercive manner by an authority, all value is exclusively subjective: the market price is generated by subjective evaluations.

Therefore, the value is not something intrinsic to the product. It is not one of its properties, but simply the importance that we attribute to the satisfaction of our needs in relation to our life and our well-being.

THE MARKET

The correlation between subjective value and market prices is one of the most imperceptible aspects of modern economics.

It is the correlation between subjective value and objective monetary prices. When referring to subjective value, there is no single unit of measurement.

Through the attribution of value, people estimate and classify goods according to their preference. The concept of value creation plays a central role in management theory.

The term “marketplace” has two possible meanings. First, it is a physical place where people go to sell, buy, or trade a product or good—for example, a supermarket, a shopping mall, or a car dealership; it can also be digital, including platforms such as Amazon, eBay, Alibaba, Shopify, and many others. Second, the term “market” or “marketplace” can also describe the existence of people who desire to buy, sell, or exchange a certain type of product. There is a market in the sense that there is a certain product that can be elicit desire and be adjusted to consumers' tastes or preferences.

A market is organized according to the following different approaches:

- Free competition occurs when the price is formed by the encounter between goods or services offered by competing firms and consumers have the freedom to choose between different offers.
- Oligopoly occurs when the offer is made by a small number of operators.
- Monopoly: occurs when there is no choice but to accept the price imposed by the offer.

The advent of the free market has produced many benefits for community life. Consumers' needs and the value they place on goods or services are always brought to the forefront within market research and marketing. This understanding of the term is much more abstract: a market exists when there are many people who have an interest in buying or selling a particular product, service, information, or currency.

For all physical assets, the market value is determined by supply and demand and, therefore, by the relationship between the quantity of goods available and the demand. For example, an asset that is highly sought

after but scarce acquires value due to the competition between those who want it, while an asset that is available in large quantities or unlimited, even if highly sought after, does not acquire value because those who seek to possess it can easily obtain it. In physical assets, we talk about the concept of scarcity of assets, which has not been part of the digital world for a long time.

A market test is the tool that companies use to identify the types of people who may be interested in a product that is about to be put on the market. This test helps companies to determine how much money people are willing to spend to get their products. The results show that different people are interested in different types of products and that some are willing to spend a specific amount on a specific type of product. Today's companies listen to the needs of consumers and respond to them. Classical economics has always been based on scarcity, which often defines prices and focuses on those products that satisfy 80% of the population. Thanks to the internet, the possibilities have increased

exponentially. Whe web offers greater market possibilities because it reaches a global audience, meaning that practically every product or good finds its market of reference. This was Chris Anderson dream with "the long tail" strategy, which is a retail strategy based on statistical analysis in which it os preferred to sell a large number of unique items in relatively small quantities rather than a small number of popular items in large quantities.

The web market is very often devoid of intermediaries. Thus, trust and word-of-mouth opinions are of extreme importance and represent the most current marketing methods online.

FUNGIBLE VERSUS NON-FUNGIBLE ASSETS

To better understand the difference between fungible and non-fungible, it is important to learn about (or brush up on) the concepts of assets, tokens, tokenization, and blockchain.

What is an asset?

Asset is a term used in finance that refers to anything that can be assigned a monetary value and can be useful or desirable. It can be something physical, digital, abstract, or that helps generate earnings. A fungible asset is interchangeable because it possesses the same value as another fungible asset. For example, a bitcoin is a fungible asset because one bitcoin has exactly the same value as another bitcoin. Fungibility is a desirable property for a currency because it allows there to be free exchange when there is no way to know the history of each individual unit. However, fungibility is not a useful property with regard to collectibles.

A non-fungible asset is something that is not interchangeable or even divisible. A non-fungible asset is, for example, a house, a used car, or a unique football card. These cannot be divided because they would not have the same value. A token is nothing more than the digital representation of an asset, which can be anything, as long as it has recognizable and certifiable properties.

In the world of blockchain technology, a

token is a virtual token whose value is issued by an organization. Tokens are units of value; they are the representation of a digital asset (a cryptocurrency, a physical product or object, etc.).

In a broad sense, a token is an object with a certain value only within a specific context.

How about an example? Casino chips. These chips are just pieces of plastic that are worth nothing outside the walls of the casino. It is in this context that their value is agreed upon and they become the representation of an asset.

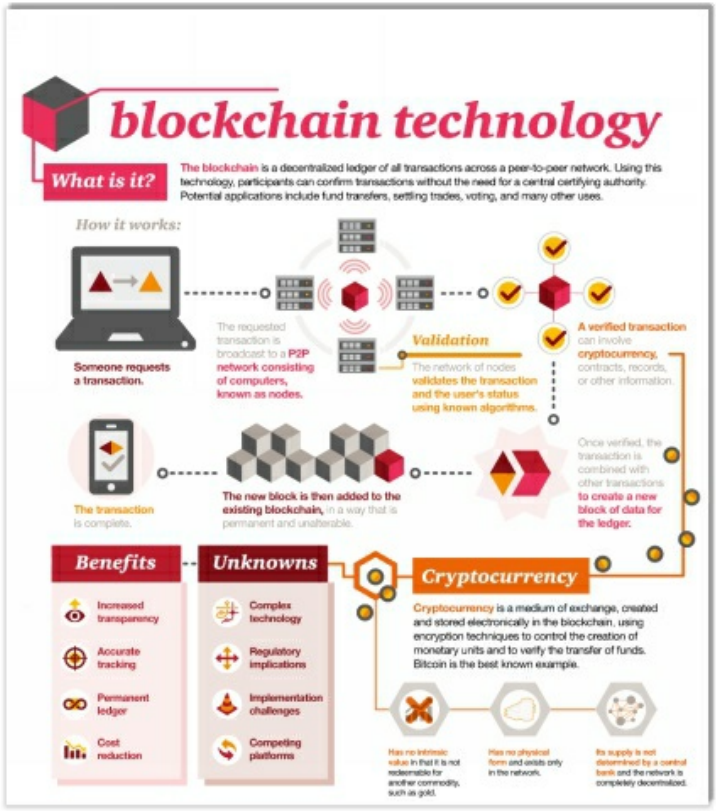
Historically, tokens have been tokens that create coins with value within a given context.

Therefore, the value of a token is what its creator decides to give it. The moment when a token is assigned that property and value is called tokenization and occurs within blockchain technology. The blockchain is a technology that can be equated to a database that collects classified data within computers and networks. Blockchain technology is

supported by three pillars: decentralization, transparency, and immutability. Blockchain allows for a decentralized model in which one computer does not have control over the entire network. A decentralized system allows for greater transparency: every movement is recorded within blockchain, and everyone can control the log of movements and transactions. It is almost impossible in physical reality to find a model with such a level of transparency, where everything is recorded and can be seen by everyone. Moreover, this data cannot be altered in any way, and, for this reason, it is immutable.

The tokenization of a digital asset within blockchain technology can create a non-fungible token: an NFT is the unique representation of a real or digital asset that cannot be exchanged for an equivalent because an equivalent does not exist. There is no NFT equal to another in the world. What people can accomplish with NFTs is endless, and the application possibilities cover all sectors, including art, online gaming, music, collectibles of various kinds, exclusive luxury

goods, virtual properties, and much more. Blockchain technology adds unique properties to digital assets by providing people with ownership and management of that token and the ability to transfer it to a decentralized, transparent, and immutable platform.


blockchain technology
What is it?
The blockchain is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without the need for a central certifying authority. Potential applications include fund transfers, settling trades, voting, and many other uses.
How it works:
Someone requests a transaction.
The requested transaction is broadcast to a P2P network consisting of computers, known as nodes.
Validation
The network of nodes validates the transaction and the user's status using known algorithms.
A verified transaction can involve cryptocurrency, contracts, records, or other information.
Once verified, the transaction is combined with other transactions to create a new block of data for the ledger.
The new block is then added to the existing blockchain, in a way that is permanent and unalterable.
The transaction is complete.
Benefits
Increased transparency
Accurate tracking
Permanent ledger
Cost reduction
Unknowns
Complex technology
Regulatory implications
Implementation challenges
Competing platforms
Cryptocurrency
Cryptocurrency is a medium of exchange, created and stored electronically in the blockchain, using encryption techniques to control the creation of monetary units and to verify the transfer of funds. Bitcoin is the best known example.
Has no intrinsic value in that it is not redeemable for another commodity, such as gold.
Has no physical form and exists only in the network.
Its supply is not determined by a central bank and the network is completely decentralized.

WHAT IS BLOCKCHAIN?

Blockchain is a shared and immutable data chain structure. It is a digital ledger containing data grouped into blocks concatenated together in chronological order whose integrity and credibility is ensured by the use of cryptography. Moreover, once inside it, the content cannot be modified or deleted unless the entire structure is invalidated. This technology is included in the family of distributed ledgers. The blockchain system is distributed across multiple nodes, and there is no single control center. Every transaction is thus recorded. This reinforces the integrity of the process itself. The whole thing is based on a set of properties that represents the foundation of the entire system and that can be defined as the three fundamental pillars of the Blockchain:

1. Decentralization offers the possibility of transferring assets without a unified administration; for example, it allows for the transfer of money without the

intervention of a banking institution. Power, within a distributed system, does not lie solely with a single authority. In the blockchain, there are no intermediaries between actions.

2. Transparency allows people to see how simple and secure the system is. Anyone can view transactions on the blockchain but not individual data. This allows for a clear system that allows owners to control their data and all associated movements. In this way, users' privacy is absolutely protected.
3. Immutability can be defined as the ability of a blockchain to remain unchanged and unalterable. No data can be modified, and the database cannot be manipulated in any way because each block is uniquely identified by a value called a hash.

HOW BLOCKCHAIN WORKS

We're used to thinking of blockchain as the core technology of Bitcoin, but blockchain has many other possibilities. Blockchain is

not just one thing; it is the abbreviation for an entire suite of distributed technologies capable of recording any type of valuable content, such as financial transactions, medical records, and land holdings. Although we already possess processes capable of recording this type of data, blockchain technology has the potential to completely revolutionize the way people interact with each other.

Blockchain is a distributed data or cryptocurrency management structure with no administration, where people know nothing about each other. The whole system, given its flawless functioning, enhances the feeling of trust. Blockchain is part of the family of technologies called DLT (Distributed Ledger Technology) that were implemented to support the cryptocurrency Bitcoin, the creation of which was motivated by an extreme rejection of government-guaranteed money and bank-controlled payments. Bitcoin creator Satoshi Nakamoto’s idea was for people to spend money without friction, middlemen, regulations, or the need to know

or trust other parties; instead, they could simply base their trust on a functioning, transparent, and secure system.

Blockchain stores information in blocks connected together by a continuous chain (thus, it is a chain of blocks). Each time you store information in the chain you are basically adding a block without changing anything previous or rewriting anything. This is because the technology is based on a non-destructive method of recording data or changes that stores them in the ladder or ledger, keeping track of every single action and recording it chronologically. Unlike all other data storage systems, blockchain is decentralized in nature.

Decentralization allows blockchain technology to be distributed across a large network of computers spread across the world. This feature reduces the possibility of tampering with recorded data, which allows for complete trust in the data. In fact, before a block is added to the chain, a series of steps take place that make the process much more secure. Computers that receive the data and

need to create a new block are tasked with solving a cryptographic puzzle and sending the solution to all other connected computers; this is the proof of work. The entire network verifies the proof of work and finally creates the block and adds it to the chain. The whole process ensures that there is full trust in every existing block.

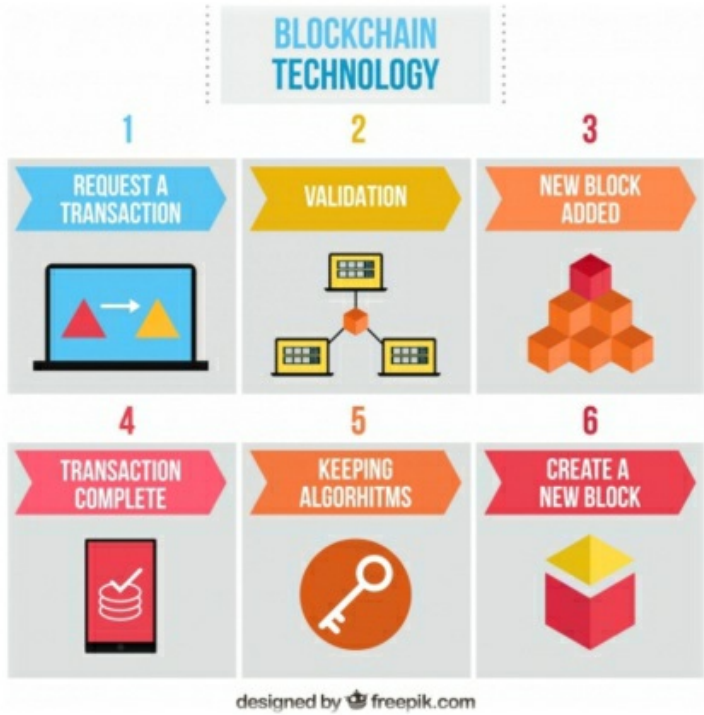
The idea of being able to store valuable data within a secure system means that when you need that data, you don't need to pay for the services of an expert intermediary, such as a lawyer or accountant. This is because the stored data can be accessed by anyone at any time with maximum privacy. The ability to avoid intermediaries saves time and money. It is called peer-to-peer interaction, which means that it is based on an architecture in which all computers perform the function of both client and server, a system that goes against information monopolies and guarantees transparency of history and privacy. The peer-to-peer system revolutionizes the way information is recorded, verified, and transported between

people. Blockchain is best defined as a technology, not a network, and can be implemented for a variety of uses. Major marketplaces of NFTs have decentralized operation and are completely based on peer-to-peer trust. This limits risk and theft. The wallets to which the stores are connected have an advanced protection system in which domains and wallet names are themselves a kind of NFT, so no one except the owner can move, withdraw, or delete the cryptocurrency contained in the wallet.

Blockchain technology is applicable to a wide range of industries, and numerous use cases continue to grow by the day. Many companies are turning to this technology for a number of benefits, including the elimination of middlemen and for faster transactions. Within the cybersecurity industry, blockchain technology has introduced new ways to store secure information and perform transactions based on trust or lack thereof (trustlessness). Digital identity is also an area that can benefit from the properties of NFTs because it is possible to store identification data with

increased privacy and data integrity. A trustless system implies that the participants in the trade do not necessarily need to know each other for the system to work.

What a blockchain system allows companies to do is to examine the feasibility of transactions from the outset with no entity having authority over the system. The peer-to-peer network founded on the blockchain has transparency as its keyword. All decentralized data is made accessible and public and is verified following proof of work. Therefore, it is honest, clear, and transparent, while, simultaneously, data privacy is maintained as it is not the data itself but the strings of code associated with it that are shared. The various leaders and political and economic authorities of the world are beginning to understand the advantages of this market, appreciating the revolutionary turnaround and the incredible possibilities of use.


BLOCKCHAIN
TECHNOLOGY
1
REQUEST A TRANSACTION
2
VALIDATION
3
NEW BLOCK ADDED
4
TRANSACTION COMPLETE
5
KEEPING ALGORHITMS
6
CREATE A NEW BLOCK
designed by freepik.com

NFT AND BLOCKCHAIN: 6 KEY PROPERTIES

Blockchain-based NFTs allow users to own digital assets. However, this ownership of digital assets is different than physical ownership because these types of assets only exist within specific, purpose-built contexts, such as marketplaces, games, and whatnot, making them more difficult to move, at least for now. When blockchain technology comes into play, it can provide a layer of coordination for digital assets, granting users' ownership and permission to manage them and changing developers' relationships with their assets. All of this is possible thanks to 6 key properties that set the rules for NFTs and represent the characteristics that make them unique.

Standardization

Standards serve to create a uniform set of rules that allow NFTs to integrate across platforms, to be interoperable, and to increase their utility value by extending their applicability.

As with all types of technologies, standards represent repeatable and shared ways of operating within a context. Standards arise from the need to save time and resources by eliminating unnecessary processes and are universally recognized within the community. A reference standard is always necessary to ensure that everyone operates in a compliant manner.

When tokenization of a digital asset takes place within blockchain, these tokens are enrolled through common, reusable, and inheritable standards. In other words, these are methods agreed upon and developed by developers that allow NFTs to operate in different ways. Each digital asset is represented differently—e.g., a game may represent its collection in an entirely different

way than an event ticket. NFTs are based on a common, public system whose standards include basic features such as ownership, transfer, and access control. This means that several purchased NFTs can interoperate with each other within the same application if they are based on the same standard. Programmers can then create applications that use essentially the same code to have all tokens within a decentralized platform, such as Ethereum's network. The three main NFT tokenization standards on the Ethereum blockchain are:

- ERC721
- ERC998
- ERC1155

The acronym ERC stands for Ethereum Request for Comments. Anyone can create standards, but it is up to the author to explain them and promote support for them within the community. Since Ethereum is based on blockchain technology, there is no one person who can take over and make changes or adjustments to the protocols. ERC was

created so that people could provide information or introduce new features to the Ethereum network, so ERC is how programmers propose changes to the network.

The numbers 721, 998, and 1155 represent the codes for those proposals. ERC721 was introduced in 2018 by Cryptokitties, where each cat to be adopted, nurtured, and raised was represented by a NFT. Before this standard, people could create fungible tokens such as Ether, but with ERC721, programmers can create tokens with different properties, characteristics, and types, all from the same smart contract. ERC721 is the NFT standard that allows NFTs to be created and exchanged. While it is the most popular cross-platform, easy to integrate, and available NFT standard, it also has a number of inefficiencies depending on the use case.

ERC998 has a special operation and was created to allow multiple ERC721 NFTs to be transferred within the network in a single bundle transaction instead of making several. With this standard, not only do you own an

NFT, but that NFT can also include your own NFTs, as in a sort of bundle. If an NFT is sold, all the tokens attached to it are actually sold as well. Thus, transferring the composition of the NFT means transferring the entire hierarchy of associated elements. For example, a cryptokitty may own a scratching post and an eating dish that may contain fungible tokens, and in selling the cryptokitty, all of the items associated with it are also sold.

The ERC1155 token is a type of standard token that has the ability to store, within its control, tokens that can act as if they were an ERC20 or ERC721 token, or both at the same time, under the same address.

ERC1155 was created by Enjin, an Ethereum platform that allows non-fungible tokens and fungible tokens to be created in the same contract. The standardization of NFT issuance makes possible a higher degree of interoperability, which benefits users. It means that unique assets can be transferred between different applications with relative ease.

The best example of ERC1155 can be found in blockchain games. Instead of requiring a new contract for each individual game item, multiple items can be created using the same contract. Also, if, for example, both weapons and crypto coins are collectible in the game, you can write both with ERC1155, drastically reducing the resources needed to efficiently run blockchain-based games.

Interoperability

As we've already mentioned, all NFTs use the same standards just so they can be on the same level and operate on the same Ethereum platform. This enables the transfer of NFTs across multiple ecosystems, where they are immediately visible and tradable. Thus, based on the same usage characteristics—i.e. through standardization— interoperability allows NFTs to be freely tradable on open marketplaces.

Tradeability

This is the first time that users around the

world can create NFTs that can be immediately available in marketplaces across the ecosystem. Here, people can buy, trade, sell, and auction NFTs. The extent of this property lies in the move from sales within closed marketplaces to the possibilities offered by a marketplace that has an open and free economy. The ease with which any user can create and then trade NFTs around the world through the blockchain is amazing.

Liquidity

This term is used to describe a level of activity within a market. The speed and efficiency of blockchain-based marketplaces leads to a high level of liquidity, which describes how many people are making trades within the marketplace and how often. High liquidity means that items are sold quickly and frequently. A marketplace based on blockchain technology allows for just such efficiency and speed in buying and exchanging, as is the case with bitcoins, which can, for example, be traded for real or fiat currency easily on Coinbase or Binance.

As with any other investment, it is necessary for anyone to be able to sell and buy tokens quickly without having to lower the price. To make this possible, the market in which you act must be liquid. In other words, there must be a high level of trading activity, and the bid and ask prices must not be too far apart.

It is very important that the NFT market has high volume and good liquidity, especially for investors who buy NFTs knowing that they have a large community of people to whom they can then sell them. For this reason, it is essential to keep an eye on the major NFT projects to invest in. To understand if a market is liquid or illiquid, the best way is to look at three indicators: trading volume in a day, the depth of the order book, and the amount that separates the bid and ask price, which is known as the bid/ask spread.

With NFTs, it is also possible to go about developing real-world asset tokenization. These NFTs could represent fractions of physical assets that can be stored and traded as tokens on a blockchain. This could introduce much-needed new liquidity into

many markets that wouldn't otherwise have much, such as artwork, real estate, rare collectibles, and more.

Immutability and provable scarcity

Immutability, as the name implies, is the ability of a blockchain to remain unchanged so that it remains unaltered and indelible. To put it more simply, the data within the blockchain, as previously mentioned, cannot be changed. In its technical nature, blockchain is configured as an immutable database, and it is not possible to manipulate the data already in the blockchain.

Each block consists of information, such as the details of a transaction, and uses a cryptographic principle called a hash value. That hash value consists of an alphanumeric string generated by each block separately. Each block not only contains a hash referring to itself but also incorporates the previous one. This ensures that the blocks are paired retroactively. This is how this feature of blockchain technology ensures that no one can intrude into the system or alter the data

stored in the block.

The most popular hash function is SHA256, or Secure Hash Algorithm 256. The hash value protects each block of code separately. The process of hashing generates a string of 64 characters. Regardless of the size of the input, the fixed length of the string, known as a digital signature, is always the same. This refers to the exact data entered, and the key property of this hash value is that it cannot be decoded. The word immutable is used to refer to something that can never be changed. Immutability is the key that imprints authenticity in digital assets as well as introduces scarcity. Immutability means that what belongs to a particular person in a game, for example, cannot be moved or changed.

Programmability

NFTs are fully programmable. They can, for example, be programmed to respond to triggers or actions taken by the owner. They can also respond to external triggers such as the time or score of a game. The programming possibilities of NFTs are

endless.

DISCOVERING NFTS

To understand the scope of NFTs, we need to go even deeper into the recent phenomenon that has redefined the way people approach the crypto world. NFT, as already said, stands for non-fungible token. A token consists of digital information recorded in a blockchain that associates a subject with a property. These are the most well-known fungible tokens that can be used as cryptocurrencies, such as bitcoins. Bitcoins, unlike other currencies, do not have a bank behind them that distributes value. Instead, they are a system based on a network of nodes that are managed in a distributed manner. Bitcoin is just one type of cryptocurrency, none of which have a physical correspondent; instead, the money is on a public book with open access to all. Each bitcoin transaction requires considerable

computing power. Bitcoins introduced the concept of trustlessness, which means that the participants involved do not need to know or trust each other as long as the system works. Real-world value is associated with such units based on the promise that a person with the asset can redeem that value for goods or services. Bitcoins strengths include immutability, non-counterfeiting, ease of transfer, robustness, and transparency.

Before the launch of blockchain technology, the cost of replicability in the digital world was almost zero. The advent of programmable digital rarity has made it possible to map the real world into the digital one. The bitcoin script language allows for a small amount of metadata to be stored on the blockchain, and these metadata are used to represent manipulation instructions. Therefore, since 2008, it has been possible to perform encoded transactions between bitcoin addresses known as “wallets.” Basically, Bitcoin is a protocol that uses blockchain technology to transfer money. To provide a kind of beginner example: Just like Gmail is

an application that uses the Internet to send emails, so blockchain technology can be used in many other spheres and sectors, not just in cryptocurrencies. It is often used in the financial sphere—hence, the practice of smart contracts—as it is free from hacker attacks and privacy violations. Blockchain is also an excellent solution for cloud storage, and it can provide a communication system between the machines within it.

During the process in which the transaction of any digital file in a commonly used application, such as WhatsApp, takes place, multiple copies of the same file that travel from one device to another are created. Within a distributed application in the blockchain, such as Ethereum, the file does not undergo copy creation. Instead, there is a step where a simple verification of the work takes place. Ethereum is a peer-to-peer platform based on smart contracts created in a programming language. The contracts that travel in this network do so against payment of a computational unit of account called an “ether.” The ether, in addition to being a

cryptocurrency, also serves as fuel for operations. This makes Ethereum suitable not only for exchanging virtual currencies but also as a network on which to run smart contracts and perform several operations such as election systems, domain name registration, crowdfunding, intellectual property, and more. During its transfer and once the token has reached the target digital account, the token remains the only copy; it just changes ownership. Blockchain technology thus allows for the preservation of the uniqueness of the transmitted digital information, and by referencing it, its value as well.

Blockchain is essentially a database with three characteristics:

- ➢ It is public. Anyone can have access to the database, and no one can own it.
- ➢ It is distributed in the sense that it is not located in one computer but is distributed across millions of computers around the world.
- ➢ It is secure. The security comes from cryptography that makes it hacker-proof.

Blockchain is a system in which digital assets are collected in encrypted form and organized via a list of all related transactions. Thus far, everyone has always considered the Internet as the medium that allows the circulation of information, but what you can't do through the Internet is transmit something of value without any intermediaries. Blockchain technology changes that by making it possible to transfer a digital asset of value from one person to another entirely digitally and without any intermediary.

Digital assets can be anything, including financial instruments, physical assets, or intangible assets such as rights. With blockchain, assets can be created. This process is called tokenization. Digital assets are based on smart contracts. These act as the system's regulators and are based on the same clauses as a typical contract; the difference is that a smart contract is totally automatic and free of intermediaries.

Crypto tokens are produced through tokenization, a process that converts the rights into an asset in the form of a

cryptographically protected digital token that is tracked and traded on a blockchain network. Digital assets are often associated with the world of business and commerce. They are the resources we use to make, deliver, and capture value. Tangible assets, such as real estate, vehicles, art collections, etc., are expensive to move and transfer. Intangible assets, such as patents, copyrights, music, digital art, and trademarks, while easier to move and transfer, are difficult to partition. Fungible assets, therefore, having no specific individuality, can be substituted for one another.

When a resource is tokenized, it becomes much easier to exchange and can be made accessible from anywhere in the world. Tokens, after all, are information that can be transmitted over the Internet and tracked using a distributed ledger, the blockchain.

Cryptographic tokens usually represent a particular fungible or non-fungible resource or utility.

Fungibility refers to the interchangeability of

a good; when one thing is fungible, there is also another thing that has the same value and can be exchanged for any other thing of equal value. The key difference with a non-fungible cryptographic token is that it is absolutely unique and distinct from any other; therefore, it cannot be exchanged because there is no equivalent.

An NFT is a unique ID to which specific information is attached that gives it meaning. You can link these IDs to anything physical or digital and have the ownership of the ID be the ownership of the resource, physical or digital, attributed to it. Thus, when you own an NFT, you also own all of the properties of the physical or digital resource that it represents.

Another aspect that distinguishes non-fungible tokens from fungible tokens is the standards on which their creation is based, respectively the ERC-721 or ERC-20.

The characteristics of these tokens are uniqueness, scarcity, and indivisibility, as they can only be sold, purchased, or

transferred in their entirety.

Non-fungible tokens are:

- Proof of ownership of the digital resource
- A unique ID that encapsulates all of an asset’s characteristics
- The rights and privileges that flow from that ownership
- Encrypted
- Registered on the blockchain

NFTs are located in the blockchain universe, and this technology allows for the intellectual property of the object in question to be proven and certified. Regardless of any transfers of ownership, its attribution will always stay in the creator's hands, while the blockchain also acts as proof of authenticity.

There are several concrete applications of NFTs that are gaining momentum. One is related to the world of art, and it can be analyzed from two points of view. First, NFTs allow tangible goods to be tokenized; thus they can represent physical works of art. Second, they have given a significant boost to

the digital art market and crypto art based precisely on the exchange of digital works created by artists who have found an increasingly thriving place to buy and sell across different platforms.

SMART CONTRACTS

In this chapter, we will take a closer look at some essential concepts to better understand NFTs and how to use them:

- ✓ Smart contracts are protocols that facilitate and verify the negotiation and subsequent execution of the contract. These are contracts in the form of programming language.
- ✓ Ethereum is the decentralized platform where smart contracts are created and executed.
- ✓ An API (application programming interface) refers to procedures aimed at solving a given task—in this case the goal prescribed in the smart contract.
- ✓ The gas fee refers to a fee or value required to successfully conduct a transaction or execute a contract on a

blockchain. Gas in Ethereum is a unit of measure for the work done by Ethereum to perform transactions or any interaction within the network. In Ethereum, the developers decided to attract constant values to the different operations that can be performed in Ethereum. In this way, every activity in Ethereum has a defined gas value, which does not vary and is not altered by the increase or decrease in the value of Ether, Ethereum's native currency. The fact that this gas value is constant responds to the fact that although the price of Ether is volatile, the computational cost of operations always remains constant.

Now that you know these terms, we can delve into smart contracts.

Smart contracts are computer protocols that facilitate, verify, and enforce contract negotiation. They are programs that are executed on blockchain nodes and that simulate the logic of contract clauses. The clauses and validating nodes represent a

change of state of the blockchain itself; therefore, the transaction being created must find consensus through a community system. This is called “proof of work.”

Within the blockchain, in fact, any type of data can be recorded and inserted in a distributed, decentralized, and transparent chain. Data validation is done through peer-to-peer verification called “proof of work” or “PoW.” None of the recorded information can be deleted or modified once it is encrypted. The nodes within the blockchain, as we have seen, exchange value in an entirely new trustless situation, which involves the absence of a third figure or intermediary. Due to this nature, blockchain can hold and store all sorts of digital values and virtual assets.

The use of blockchain technology is limited to digital assets; dematerialized tangible assets can also be recorded within it. Smart contracts come into play when the data transferred on the blockchain platform must respond to predetermined conditions. Then, the platform is used to certify the

transactions. Nick Szabo defined the concept of smart contracts in 1997, before blockchain. However, blockchain has played a key role in ensuring the implementation of smart contracts by allowing information and transactions to be managed securely.

A smart contract is a computer protocol that facilitates and verifies the execution of a contract between two or more users. It automatically verifies the terms based on the clauses that have been agreed upon. It is called a smart contract precisely because of its ability to be intelligent in the sense of being able to execute an agreement. It typically uses the "if/then" functions built into computer software and can only execute what has been predetermined in the programming phase. The different stages of implementing a smart contract are as follows:

- Definition of the agreement between the parties, which involves the translation and registration of the details in a smart contract.

- Related verification and inscription of the smart contract in the blockchain, where it is

registered and made exclusive. The blockchain guarantees the automation of contractual obligations and their transparency in case of execution, as well as the immutability of the collected data.

The smart contract then becomes an identified block simply by transforming into a hash value that allows for the maintenance, accessibility, and correct updating of a shared ledger or distributed ledger.

The proof of work (PoW) mining inside Ethereum occurs when the miner solves the cryptographic puzzle and sends it to the whole network. At this point, the applicant of the contract pays a fee and the contract is registered.

The block is added to the immutable and certified chain. The whole operation has a public value and is completely accessible. The hashes in the sequence are safe and cannot be counterfeited.

At this point, the smart contract is able to access third-party (external) applications in order to know the conditions of certain

situations and occurrences for which it was programmed—for example, to know flight times in order to communicate delays. In practice, it queries the APIs to get the necessary information. In this way, it saves a considerable number of resources in negotiation and execution, speeds up performance, and considerably decreases the chances of disputes between the parties.

Unlike a traditional contract, a smart contract is binding by its very nature—i.e., by its particular technology. The blockchain node prevents pre-established conditions from being violated, and conditions related to the conduct of the individual take a back seat. This irrevocability, which is triggered the moment the data is entered into the blockchain technology, leaves no room for exceptions.

Ethereum's virtual currency is Ether, which serves as the unit of measure and cryptocurrency. However, Ethereum, unlike Bitcoin, is not just a network for transferring value; it is a true platform for running smart contracts. Smart contracts can define rules,

like a normal contract, and enforce them automatically through code. However, they are not controlled by a user. Instead, they are deployed on the network and executed as originally programmed. A smart contract on Ethereum uses the same operation as a vending machine: if you insert the coin and select the snack, you receive the snack. The vending machine follows programmed logic in the same way as a smart contract. Any programmer can write a smart contract and deploy it on Ethereum's blockchain network. Deploying a smart contract is technically a transaction, so you will have to have Ether to pay the gas fee just like a normal transaction. However, the costs of implementing the contract are much higher.

Since each Ethereum transaction requires computing resources to be executed, each transaction requires a fee. Gas is the fee required to successfully conduct a transaction on Ethereum. Both the ether and gas gee on Ethereum are essential to keep the network secure in order to prevent any spam.

Ethereum has developer-friendly languages

for writing smart contracts, such as Solidity and Vyper. Smart contracts are public on Ethereum and can be thought of as open APIs. This allows smart contracts to be composable. Moreover, you can start a smart contract on an existing one. It is also possible to enable a self-destruct option, which aims to remove programs that are no longer used to improve effectiveness and performance.

With the help of smart contracts, digital assets can be programmed in such a way as to have additional functions compared to traditional modes. Digital assets based on a smart contract can execute clauses completely autonomously, without the intermediation of third parties, thus increasing transparency and legal security. For this reason, they have many possibilities within different areas and applications, such as the following:

- **Cybersecurity:** Although it is a system visible to everyone, everything in the blockchain is inscribed through encrypted keys that allow the verification of the data within it, and the transmission of data is

protected from interception and manipulation.

- **Election systems:** Blockchain enables voter identity authentication, secure record keeping, and accurate and transparent counting.
- **Internet of Things (IoT):** When objects become smart and talk to each other they can facilitate and verify the execution of operations within an enterprise. Smart contracts provide the backbone for the Internet of Things and allow for a ledger that can manage a large number of devices.
- **Public administration:** Can offer monitoring to ensure secure and transparent governance.
- **Crowdfunding**: Enables campaigns where contributors can have full control of the money invested. In this way, the donor is more secure and the money is not spent on intermediary activities.
- **Intellectual property**: The very structure of blockchain allows you to keep track of everything, including transactions and change of ownership. This is why smart contracts find application in tracking individual properties with chronological accuracy.

Smart contracts

1. Smart Contract Explained

- A contract is created between two parties
- Both parties remain anonymous
- The contract is stored on a public ledger

- some triggering events are set i.e. deadlines
- The contract self-executes as per written codes

- Regulators and users can analyze all the activities.
- Predict market uncertainties and trends

2. How Do Smart Contracts Work

3. Smart Contracts Benefits

4. Smart Contracts Use Cases

CRYPTO DUKEDOM

DIGITAL ASSETS

Now it's time to explore the world of digital assets. A digital asset can be any digital document, sound content, image, etc. that is transported in a digital format. A digital asset is a digitally stored piece of content. More precisely, it is a self-contained collection of binary data that is uniquely identifiable and has some value. This is because binary data is easily understood by a computer. The three main characteristics of a digital asset are:

- The digital nature
- Unique identification
- Value

Any digital asset has a value, but not all values are established in the same way. It's a pretty diverse world since virtually anything can become a digital asset, but through smart

contracts and blockchain technology, digital assets can be programmed to be issued or traded as assets.

Digital assets carried on blockchain also inscribe within them all their token’s transactions and movements. The digital asset standard introduced by Ethereum in 2015 is ERC20, and it is the most widely used. Digital assets can be smart-contracted and programmed to perform various functions autonomously and without an intermediary. Once the digital token has been issued on the blockchain, it is transmitted to the network and distributed following the payment of a fee. At this point, the digital assets can be traded within a community of investors.

In practice, the moment the protocol has been established or the smart contract "deployed" on blockchain, the digital assets are mined or transferred to the public address of the issuer. Each public address is assigned a private key that allows the owner of the tokens to sign the transaction related to the transfer of digital assets from his address to another. The custody of digital assets refers to the

possession of a private key that is linked to the public address where the digital assets are kept.

The domain and ownership of an NFT is verifiable by anyone. NFT creators can sell their work, which corresponds to a unique ID worldwide in the Ethereum network. They can claim the copyright on the token and those of resale of the same.

Each NFT features the following:

- A unique ID.
- It is not interchangeable with other tokens.
- Ownership information on the token is always verifiable.
- It is based on Ethereum and can be sold or purchased on any Ethereum-based NFT marketplace.
- It cannot be manipulated.
- It can be resold if resale rights have been earned.
- It cannot be deleted from the Ethereum wallet.

The creator of an NFT can prove ownership,

earn royalties every time it is sold, or sell it independently on any NFT marketplace platform without involving any third party. It is the creator of the NFT who decides the scarcity of their digital asset. Often creators generate multiple editions of their tokens, each of which is unique.

NFT – AREAS AND USES

For a digital content creator, an NFT is important because it allows them to maximize earnings that will not be sucked up by any platforms and/or intermediaries for sales, commissions, and fees of various kinds. Platforms often earn more than creators when they display an artist's work because of the possibility of exposure. In the case of NFTs, however, creators do not transfer ownership of the digital content to the platform. Instead, ownership is intrinsic to the token itself, embedded in the content. The funds raised from the sale of the content belong to the creator, who can also claim royalties. Owning a digital asset is valuable because the marketplace makes it so through verifiable ownership.

NFTs have seen a lot of interest from online game developers because they can provide deeds of ownership for in-game items and bring a number of benefits to players. In many of the world's most popular games, it is already possible to purchase in-game items that can be used to, for example, customize and/or equip your characters or achieve winnings. If that object was an NFT, it would be possible to recover the money spent reselling it once the game is finished. If the purchased accessory increases interest and value, then you can easily generate some profit as well.

One of the possible uses of NFTs that is growing more and more is that of decentralized finance. Thanks to the use of smart contracts, the transaction takes place with total security. There are decentralized platforms or DeFi that allow you to borrow money against collateral. The automatic clauses of smart contracts ensure that the creditor is reimbursed. On the other hand, the NFT itself can be a guarantee to access a loan. If the creditor is not repaid, the crypto

object is sent directly to the creditor's wallet.

As a recent and rapidly expanding technology, the world of NFTs has yet to be fully explored, and new possible uses pop up every day. There are many of them, and they all represent potential profitable areas of investment, gain, and implementation that could also innovate many "non-digital" sectors

MAIN USES

The overwhelming reach of NFTs is gaining ground in more and more areas and sectors, from the corporate sector, where it solves problems of smart recognition, to the gaming world, where fans from all over the world enjoy increased possibilities of personalization.

Other possible uses of NFTs are in the fashion industry and in the big brands, where real products can be placed side-by-side with digital assets that have been intentionally created to be unique and original. Moreover, not even the real estate market is immune to NFTs: today, a virtual plot of land can be worth as much as a real one in the center of New York. However, it is the uniqueness of NFTs that breaks through to the sentimental value of investors and collectors around the world.

INTELLIGENT IDENTITY

Blockchain technology and NFTs are playing an increasingly important role in the digital

economy. Their ability to represent digital objects that are unique to the world is widely exploitable due to the principle that a unique object is more valuable. The attributes that NFTs can incorporate can be pretty complex, and each NFT can have increasingly dynamic and smart information, as we have seen concerning smart contract automations. Many companies will be able to take advantage of these features by applying NFTs to software licenses. For instance, a key, a unique and complex string, can be required to access company software. NFTs in your wallet, browser, or mobile device will speed up access and identity verification. NFTs are perfect for breaking down attempts at identity fraud.

All documents can be digitized to represent identities such as qualifications, references, and physical appearance; this application of NFTs requires the transformation or digitization of documents into unique tokens that can be used for identity recognition. NFTs could make some exciting systemic changes in this area.

GAMING

In addition to the corporate sector, many industries are discovering the benefits of NFTs, chief among them the gaming world. Gamers use NFTs to exchange digital assets and earn more points playing video games. Tokens have the advantage of being authenticated and verifiable by all participants in a game. NFTs allow gamers to fully utilize their gaming skills and generate real-time revenue, such as buying and selling weapons, vehicles, and characters. Within the gaming industry, it might be safe to say that NFTs are already more than just a trend.

For instance, with NBA Top Shot created by Dapper Labs, the NBA is already investing in NFTs. What is happening in gaming is that many people claim ownership of digital items and are willing to spend a lot to own extremely rare and hard-to-get gaming items. NFTs allow players to celebrate their accomplishment in obtaining a very rare gaming item, which could be literally anything. Also, because they are non-fungible tokens, these items gain added value because

of their rarity, uniqueness, and right to be claimed. Weapons, items, character skins, etc. increase the rarity, cost, and importance of the game. Besides, these properties can be sold and gain even more value.

Today, with NFTs, you can take properties with you, sell them, collect them, and move on to another game. The benefit is primarily emotional/affective: it is gratifying to know that you can own a clip of the NBA team—not as a mere collectible, but as a keepsake that achieves emotional value before monetary value. Moreover, the value of the assets is part of the gaming experience.

FASHION

NFTs offer new ways for consumers to collect, wear, and trade fashion items online. Now that most fashion shows have been scaled back or gone virtual, they could become an essential tool for the fashion industry. A new chapter is about to open for the digital art story: brands are pushing the emotional, nostalgic, and sentimental sides of the NFT factor.

There is a big advantage for brands that start creating fashion-related NFTs. For example, Argentinean designer Andrés Reisinger sold ten virtual pieces of furniture in an online auction, with the most expensive item reaching almost $70,000. Virtual furniture, auctioned through Nifty Gateway, can be used within rooms such as Decentraland or Somnium Space. Targeting this growing market has a positive effect on the brand's visibility online and, therefore, brings in new viewers. “Iconic pieces,” “limited editions,” and “luxury” are keywords that have always been part of the fashion industry.

Today, projects like The Dematerialized represent the vanguard of digital fashion. Arguably in the near future, fashion will not be able to do without NFTs. The development of limited edition virtual goods such as clothes, shoes, and fashion accessories with which an NFT is associated proves the ownership of that good and the realization in limited and special edition. In a mixed perspective, halfway between digital and material, a person can buy a real product

belonging to the fashion industry and, at the same time, receive an NFT and a digital version of the same product to use in online games, which extends the value of the object in both spaces.

The scarcity of the good and the limited supply amplifies the sense of exclusivity traditionally associated with luxury goods and represents an advantage in terms of brand visibility. NFTs use in the fashion industry responds to the needs and demands of the public. Many people want to show off their unique products in a virtual gallery or wallet or by having them worn by game characters or avatars, so there is a market with a high level of liquidity.

CRYPTO ART

A younger generation is approaching the art world by opening an alternative, less intimidating, and more transparent market. Collecting is no longer the preserve of an exclusive and privileged class. Cryptographic art in blockchain allows those who wish to do so to support an artist's work. Artists gain the

advantages of visibility and more transparent earnings through smart contracts and royalties. Plus, work in crypto art allows one to experiment, hone skills, and tell a story from one's point of view. The best artists, those who also know how to tell a story and showcase their personalities, eliminate the middlemen and establish a close relationship with fans.

The distinguishing factors for cryptographic digital art are the possibility granted to artists to maintain their rights to their works and the ability for novice artists to think and move within the crypto art world on par with traditional and established artists. Digital art has always been reproducible, and within the digital artwork industry, there were a lot of ownership and rights issues. With crypto art, works can be seen by sharing their images on social media or the web, but only the person who buys them has ownership; thus, the artist also protects their rights.

MUSIC

The person who can best explain the possible

applications of NFT in the music industry is Mike Shinoda, co-founder of Linkin Park. Although verifiable digital scarcity has become all the rage, he was ready to embrace this new business model even before the public heard about it. Today, his single “Happy Endings” was sold in NFT for about $10,000, with all proceeds going to the ArtCenter College of Design in Pasadena, California.

Emulating what Mike Shinoda has done, many other artists are coming up with music projects that can depopulate the crypto art market—in this case, music, which carries with it many copyright issues and discussions.

The music ecosystem thought it could take advantage of the Internet to help create a community around music and allow musicians to take control of their music and make a living without having to be part of the music industry. But even with Napster, iTunes, Spotify, and others—all services that were meant to bring music closer to fans—that wasn't the case. The distribution system

continued to reap profits on the backs of many musicians. To this day, most artists receive about 12% of all profits generated by their art. Basically, the streaming platforms have become the middlemen.

The gap between the value that music brings to people's lives and the price they pay for it is huge, and a song that can change people's lives is worth far more than the few cents the artists gets from a stream. NFTs provide a new business model that allows artists to value their music appropriately, reconnect with audiences, and challenge the old order of things.

COLLECTIBLES

The most basic application of non-fungible tokens comes in the form of digital collectibles and in-game purchases. These are items that artists have developed themselves or licensed from pre-existing brands. For example, DC Comics recently began exploring the world of NFTs, and from now on, artists cannot sell tokens representing their intellectual property.

Both artists and collectors of crypto works assess the value of their products according to the following measures: intrinsic value (i.e., if they like the object on a personal level), extrinsic value (i.e., if owning that token makes them look cooler), by utility (if, for example, it can be used in a game), or as an investment (if that particular NFT can maintain or increase its value). For investors and collectors, the primary purpose of NFTs is for them to increase in value. The best collectors value discretion and exclusivity. Rarity is a distinguishing factor; this is what the Rare Pepe Foundation and the famous meme are based on. Many have started buying and selling limited edition cryptographic Pepe collectible cards developed by artists and issued by the Rare Pepe Foundation. Buyers subsequently store these in Rare Pepe wallets.

Non-fungible tokens can even present an opportunity for endangered species conservation and environmental tourism. Collectibles are sometimes referred to as "emotional assets" or "passion investments."

NFTs could be used as an alternative means of wildlife conservation and funding for environmental groups. Collectible animals could carry with them all the characteristics of the endangered species in the form of metadata. This could be extended to virtual environments as well.

REAL ESTATE

The digital real estate sector provides for a cost of production of land that borders on zero. Its true value is precisely linked to its uniqueness, to the fact of owning an asset—or, rather, an original and unique token. Here, the convergence between the real and the digital reaches its highest expression. It becomes a thin line of demarcation that is almost impossible to see. In places like Decentraland, it is possible to have your own store with digital assets linked to a clothing chain and much more. Several artists have created NFT villas and collections to visit as well as huge virtual events. On these marketplaces, the value of a property or piece of land becomes much higher than the real

thing, and a digital property is sold in a second without any need for a middleman.

To better clarify the opportunities that the real estate sector could exploit with NFTs, it is enough to take the example of the Canadian architect Krista Kim who sold her digital house for 288 ether, the equivalent of $512,000. In this way, the architect brought her meditative design concept into the realm of digital assets. The purchase of this designer home allows the owner to place it within a metaverse, a term that describes a collaborative virtual world in which to experience real estate.

A virtual land or property offers the same investment possibilities as the sale of real estate: it is possible to invest in land, build hotels, or put up stores, although the minimum investment is around $25,000. The digital real estate world is growing rapidly, and so are the dedicated projects. We will follow up with NFT developments in this area by providing a dedicated guide soon.

HOW TO CREATE, BUY AND SELL A NON-FUNGIBLE TOKEN

Managing NFTs is much easier than it sounds, especially after understanding their facets and properties, the underlying blockchain technology, and the essential function of a smart contract. Non-fungible tokens can virtually represent an endless array of objects, such as artworks, motion designs, GIFs, virtual objects within video games (such as skins, weapons, and avatars), and much more, following the futuristic and artistic visions of those who create them.

As we have seen, however, it doesn't end there. It is also possible to transform music into NFT, as well as collectible cards, cars, houses, animals, designer sneakers, virtual

terrains, and clips of iconic sports videos. For example, the creation of a graphic image, a .jpg, to be placed on the Ethereum blockchain, is now the leading NFT blockchain service.

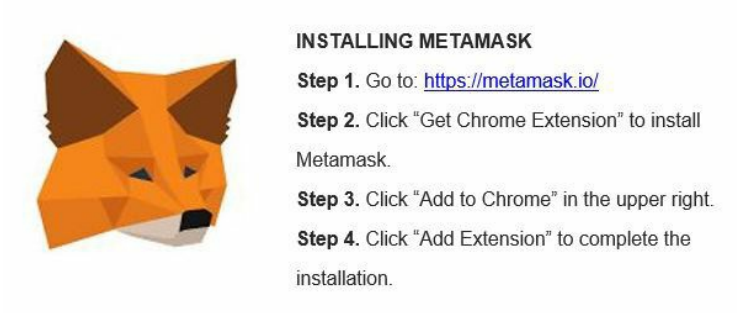
But there are others, such as EOS, Flow from Dapper Labs, and many more. The difference in choosing a service lies in the fact that each of them is based on a different standard, and it is necessary to take this into account based on the purpose for which you want to create the NFT and where you then want to use it because the standards can change from wallet to wallet. To turn the image into NFT art, you will need:

- An Ethereum wallet or a wallet that supports the ERC721 standard, including MetaMask, Trust Wallet, or Coinbase Wallet.

- To turn $50 or $100 into ether or ETH, the currency on which Ethereum is based. There are many accepted currencies, from the dollar to the pound to the euro, or you can buy ether directly from another cryptocurrency.

MetaMask is a cryptocurrency wallet that

allows you to interact with decentralized platforms based on Ethereum directly in your browser. It is compatible with Chrome, Firefox, and Opera and enables you to exchange cryptocurrency in ether form and manage ERC20 tokens and non-fungible tokens in ERC721. Moreover, it is a highly secure wallet and offers advanced dApp integration with the ability to make purchases through dematerialized apps.


INSTALLING METAMASK
Step 1. Go to: https://metamask.io/
Step 2. Click "Get Chrome Extension" to install Metamask.
Step 3. Click "Add to Chrome" in the upper right.
Step 4. Click "Add Extension" to complete the installation.

Once downloaded, activating and using it is a breeze. To be so secure, MetaMask uses keys so that you can recover your money. Once it is installed, you'll find it in your browser bar represented by a small logo in the shape of a fox.

Once you log in with your chosen password,

12 words will appear in sequence for you to memorize and enter on the next screen. At this point, MetaMask will have created an Ethereum address.

CREATE A WALLET

To do this, follow the instructions below.

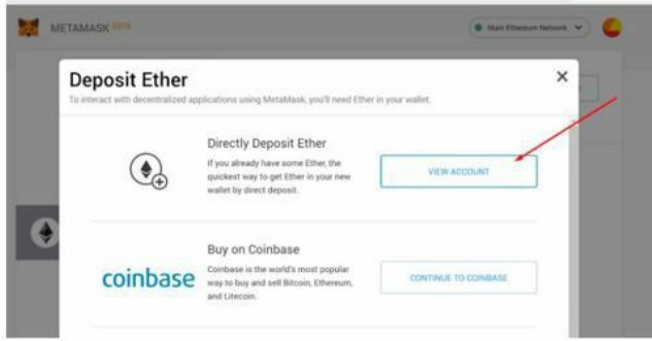
Step 1. Click on the Metamask logo in the upper right-hand corner of your Google chrome browser.

Step 2. Read and agree to the terms and conditions. You may have to agree to 2 to 3 pages worth of terms.

Step 3. Enter a password and click "*Create*" to create your wallet.

Step 4. You will see a set of 12 "seed words" for your vault. Click "*Save Seed Words as File*" and copy the "*Metamask Seed Words*" file that is downloaded to a safe place. You will need it to access your vault.

Step 5. Click "*I've Copied It Somewhere Safe*" once your seed words file has been secured. You'll be taken into your Metamask wallet.


METAMASK
Deposit Ether
To interact with decentralized applications using MetaMask, you'll need Ether in your wallet.
Directly Deposit Ether
If you already have some Ether, the quickest way to get Ether in your new wallet by direct deposit.
VIEW ACCOUNT
Buy on Coinbase
coinbase
Coinbase is the world's most popular way to buy and sell Bitcoin, Ethereum, and Litecoin.
CONTINUE TO COINBASE

DEPOSITING FUNDS

- Click on **View Account**.
- You can now see your **public address** and share it with other people. MetaMask offers **different methods to buy** coins, but you can do it differently as well. You just need your address.

The MetaMask extension will regularly be available in your browser's toolbar. It's easily accessible, and as you saw from these steps, simple to use as well. Sending coins is also very intuitive; there is a big send button, and the rest are easily understandable.

Sites such as Coinbase are ideal for exchanging currencies such as dollars for cryptocurrencies. By creating an account on Coinbase, you can access a wallet into which you can transfer money from your bank or PayPal account. Using ETH in the Coinbase wallet, you can transfer money to your MetaMask crypto wallet connected to the marketplace. Now, you are ready to coin your first NFT.

Major marketplaces such as OpenSea, Rarible, and Mintable have a "create"

function. For example, on one of the biggest marketplaces, OpenSea, you just click on the button in the upper right corner to create NFTs and connect your wallet through the password. Then, you can create your personal folder and enrich it with a profile picture and cover photo. When making your own NFTs, you can add all the properties and unique attributes that increase the NFTs' scarcity and value.

The creator also has the opportunity to add content that only the buyer can access. Marketplaces let you upload many file formats, either static images or animation. To put your non-fungible digital objects up for sale, all you have to do is write a description of the work, add tags that will allow the NFT to be found, and set the price through the "buy it now" option or set a minimum bid if you want collectors to bid on the auctioned piece.

Also, you can put up a single copy or multiple editions of the same work for sale, but the more editions that are created, the less valuable the piece will be perceived to be.

Once all the options are set, you will make the file's actual drop, which is when it is effectively tokenized and inserted into your wallet. Entering the token pricing options gives you the ability to schedule royalties that allow NFT creators to earn a commission every time the resource is sold to a new person.

All of this can create passive income streams that last for the life of the artist and are automatically triggered by smart contracts. A price may be charged to place a work on a marketplace, and it can vary depending on the store chosen. The tokenization or minting process has an associated fee called a gas fee that must be paid with Ethereum. Gas fees are essentially the cost of electricity for all the computers that calculate the transaction and tokenize the work. These gas fees can differ and change at any time based on the demand of calculation.

To start making huge gains with crypto art, being an established digital artist on social media or being a celebrity helps a lot. This is a vast sea to swim in, and having an online

presence can help build interest in your work. The art that you can make doesn't have to have all the same aesthetics; originality could be a distinguishing factor. For a young artist creating your first non-fungible tokens, it's crucial to be true to yourself, to make things that you are passionate about, and to be able to convey your passion to others.

HOW TO BUY A NON-FUNGIBLE TOKEN

NFTs have made the rounds on the web because of the great sales made by artists like Beeple, singers like Grimes, entrepreneurs like Jack Dorsey, and many others who are discovering this world every day. Behind these sales is more than just the hype or gamble that many people associate with the world of NFTs. In reality, these are investments that can be calculated and reasoned and that are based on several prerogatives that make the purchase consistent and valuable:

1. **The notoriety of the NFT creator**.

Simply put, the creator, brand, or genre that creates the NFT should be famous, which involves a more considerable investment, but usually renowned people or big brands have a good following.

2. **First Edition**. It matters a lot to secure the first edition of the NFT in question because people always want a piece of history, and it will be possible to profit from the resale of the asset.
3. **A tangible NFT** is a good investment because it allows you to have both a digital property and a tangible asset. Anything that can be associated with the non-tangible asset is added value.
4. **Scarcity** is imperative because the rarer an item is, the more valuable it is.

Being an NFT buyer involves having a certain kind of market focus and a good dose of smarts. Art doesn't look at rankings, but collectors often use OpenSea's rankings page to discover new and exciting creators. It's a

matter of initially understanding what kind of NFT you intend to buy and what kind of standards it is based on. This is because some of them are only present on specific platforms, and you need to have an account on the platform you're using and be able to connect your wallet to it. For example, to buy NBA Top Shot, you need to open an account with and create a wallet on Drapper, and you need to have stablecoin USDC currency. It is also important to understand the distribution of NFT projects. Some communities isolate themselves around a single project, such as Gods Unchained players, but some enthusiasts play with CryptoKitties and actively participate in the interchange between communities.

What is certain is that entering the world of NFTs at this time is an advantage. It is a trend that is not destined to disappear and in which investments are profitable. Virtual worlds are expanding. New native blockchain worlds are being born that are more and more cutting edge and simplified. Their development is increasingly driven by market demands.

Cryptovoxels is a good example. It has a similar operation to Decentraland in which the most exciting element is the ability to show NFTs purchased within the world. In contrast, the virtual world projects are, like Somnium Space or High Fidelity from the creators of Second Life, allow you to virtually showcase of your NFTs.

Crypto Dukedom

WHAT ARE NFTS?

Non-fungible tokens are a special-grade digital asset where every single token or item is unique. Because of these characteristics, NFTs can't be interchanged or replaced with identical tokens.

BUY

HOW TO BUY NFT?

01	Choose an NFT marketplace that lets users buy and sell non-fungible tokens
02	Create an account in your chosen NFTmarketplace
03	Sign up for a bockchain wallet and connect that wallet to your NFT account
04	Buy Ether or other supported digital currency from a crypto exchange and fund your blockchain wallet
05	Browse through the marketplace listings and choose the NFT you want to buy
06	Participate in the auction / bidding process of your chosen NFT
07	Based on the bidding amount, you may or may not own the NFT (The NFT is awarded to the highest bidder)

SELL

HOW TO CREATE AND SELL NFTS

- Choose a marketplace that lets users create NFTs and create an account
- Connect your blockchain wallet to the account and fund it
- Select the contents that you want to turn into NFTS and upload them to your account
- Pay the minimum fee for creating the NFT (The fee varies from marketplace to marketplace)
- Once uploaded, select the NFT you want to sell and set a fixed price or a bidding range
- Promote your NFT on social media to gain prospective buyers
- Once a buyer buys your NFT (generally through bidding). the payment automatically gets stored in your blockchain wallet

10 DISRUPTIVE PROJECTS

Beeple's artwork displayed on a smartphone. Dollars background.

Here is our selection of the 10 most interesting NFT projects so far.

1. **Mike Winkelmann**, aka **Beeple**, sold his NFT titled “The First 5,000 Days”

and challenged the whole world to consider how disruptive NFTs can be. The piece depicts a collage of all the digital works Beeple had created since 2007.

2. **Nyan Cat**, the animated GIF featuring a cat flying through space followed by a rainbow and created by Chris Torres, sold for nearly $580,000.
3. Grimes sold **WarNymph Collection** Vol. 1 for the equivalent of $5.8 million, while many other musicians have made record figures and revolutionized the industry. Kings of Leon, for example, generated sales of about $1.45 million by tokenizing their album and jumping into the NFT market.
4. **Cryptopunks** is the project that inspired the whole crypto art movement. It features 10,000 unique characters to collect with proof of ownership stored on the Ethereum blockchain. Cryptopunks are 24x24-pixel algorithmically generated art

images. Most are punk-looking boys and girls, but there are some monkeys, zombies, and even aliens.

5. **Authoglyphs** is a generative art experiment project from LarvaLabs. Each Authoglyphs is unique and created by executing code on the Ethereum blockchain. The idea behind these glyphs is that each one can be made by anyone who is willing to donate the creation fee of 0.20 Eth (about 525$) to the 350.org charity. The maker of the glyph will then also become the first owner of the glyph.
6. The best example of projects aimed at charities and NFTs is **Cryptokitties' Honu**. Ocean Elders and ACTAI Global partnered to create an exclusive CryptoKitty that was auctioned off to generate funds to save the oceans.
7. The **PandaEarth** Collection, available on OpenSea, is a game centered around delightful reproducible, collectible, and adorable creatures in the form of digital pandas

living in the blockchain. Each panda comes from the true descendants of 50 giant pandas officially licensed by China's Panda Conservation and Research Center to be reproduced on the blockchain.

8. **World of Ether** is a duel-based game where you collect monsters, which must be bred and trained for combat, in a decentralized way. Each monster is based on a smart contract and referenced by the platform.
9. **CryptoZombies** is an interactive school that teaches all of the blockchain techniques and how to make smart contracts in Solidity. With CryptoZombies, you can learn how to create your own collectible game. Inside, there are step-by-step lessons to develop a blockchain-based game.
10. **Codex Protocol** deals with digital assets of real objects. On the platform, you can verify the authenticity of a collectible and view its provenance, identity, and history.

The art and collectibles market often contains counterfeit or defective pieces because they rely on an antiquated validation system. Codex Protocol is a solution to this problem because it is a new structure that is simple, secure, and immutable.

NFTS - PROS, CONS AND THE FUTURE

Depending on the industry and application, NFTs have several demonstrable and revolutionary benefits. Within art, there are many existing digital works whose provenance could not be protected prior to this technology. By introducing the principle of scarcity and uniqueness, NFTs have redistributed power within a world monopolized by galleries, auction houses, and investors.

Art projects such as Beeple's do not generate such hype simply because of the cost of individual works, but rather because of the change and revolutionary impact they represent in the art market and beyond. The fact that works of art required large sums of money to own was already a fact, a custom; they are unique objects that wealthy buyers

from all over the world make their own.

Today, tokenized art is visible to anyone, some works are within everyone's reach, and everyone can access a marketplace and enter a contemporary art gallery with the possibility of becoming the owner of a unique and valuable piece. Thus, artists can also showcase themselves according to their own preferences. The democratization of art starts here.

What many people continue to wonder is why they should pay to have something that would be easy to download and store on their computer. The problem is that the downloaded image on your computer has no real value; it can't have the same value as the original image. It's exactly like downloading an image of a Picasso: no matter how good the resolution is on an image that represents an unquestionably valuable subject, it will never have the same value as the original.

The value of cryptographic art is based on scarcity and non-reproducibility. What is difficult to understand is that the true public

value of the purchase made is not only the work and what it represents, which is reserved for the personal sphere, but actually resides in the token itself.

For other applications, however, the value is based on the ability of NFTs to be transferable. This allows, for example, game enthusiasts to be able to buy several NFTs and collect them within another platform. This ability, due to the creation of peer-to-peer standards, makes NFTs even more desirable.

Within the gaming world, spending money in order to have a certain skin for in-game characters was customary even before the appearance of NFTs. Minting an NFT means making that skin authentic and traceable back to its original owner at all times. Thus, it is the blockchain technology that makes it feasible for NFTs to take on value, and it is the same technology that makes possible their applications in business, industry, gaming, art, music, tourism, real estate, and much more in the future.

However, even the most revolutionary of technologies holds faces challenges, problems, and potential drawbacks. For instance, many creatives, finally protected and recognized in their rights, may look for easy money and start to increase the editions of their works in an excessive way. Making too many editions of the same work would lead to an inevitable devaluation of the NFT and a consequent impoverishment of the very idea of uniqueness that NFTs represent.

The digital art market is bigger than most think. That's why some platforms have provided selection criteria by which creators can sell their art, making access challenging. Furthermore, as much as this world of crypto art may be within the reach of potentially many more people, it is often reserved for experienced investors who have already profited from this sector and for whom owning digital assets is a cultural marker. This should not be discouraged. That this market will become mainstream for many is only a matter of time. Change is in the air, and the potential is endless.

Marketplaces are a good showcase for artists, but determining how to be seen and talked about is often up to the creator, who is responsible for engaging with their audience through specific channels, such as Reddit, Twitter, or Telegram. Today, crypto art represents the best alternative option to traditional art for emerging artists. However, there is a hyperactivity between supply and demand, meaning continuous movement that results in hyper production and hyper consumption, which makes it difficult for some artists to emerge and be seen.

A great debate has arisen around the ecological issue of NFTs, which involves the environmental impact of the crypto world. This infrastructure is powered by electricity, which is mainly produced by fossil fuels that account for 64% of the world's electricity (coal 38%, oil and gas 26%).

The use of fossil fuels involves the emission of CO2, which can be naturally reabsorbed by trees, but if this exceeds the capacity of absorption, carbon dioxide accumulates in the atmosphere, causing pollution, temperature

rise, sea level rise, total loss of entire species, and countless severe weather events.

The words of Seth Godin, famous marketing guru and creator of Tribe, seem to sum up the problem: "And so creators and buyers are then hooked into a cycle, with all of us paying the duration of the costs associated with an unregulated system that consumes huge amounts of precious energy for no other purpose than to create a few scarce digital tokens," defining the whole system of NFTs as a trap into which many have stumbled.

A single Ether consumes about the equivalent amount of electricity as an EU resident in 4 days. In addition, NFTs involve more complex transactions and multiple chain reactions, such as bids, sells, and property exchanges. Still, the possibilities that crypto art and NFTs are offering to young artists and others are considerable. This is why so much frenzy and excitement has been created around it.

The solution cannot be to stop everything and trash such a technology; it must be to find

effective solutions to lower the ecological footprint of the creation and marketing of NFTs. It is essential to make the world population more and more aware of environmental issues and to think together about valid solutions to the problems that arise.

For example, artist Memo Akten launched an extraordinary investigation and created a set of tools to evaluate everyone's crypto wallet. Evaluating solutions that include greater transparency from major marketplaces, focusing on renewable energy resources, or minimizing on-chain transactions could be far more useful for the future of the crypto world and the real world than pointing fingers and blaming consumers or emerging artists. The ecological impact of proof of work (PoW) was already known from the beginning, but not giving up on this technology is essential to be able to innovate the world. The decisive step for us is raising people's awareness and activating a proactive process aimed at concrete problem-solving rather than sterile accusations and judgments.

What has to change is the mentality, the awareness, and the desire to create a sustainable world. We should realize by now that progress is unstoppable and always involves advantages and disadvantages. We are here today to increase the former and decrease the latter for the common good of all.

CRYPTO ART REVOLUTION

This guide is aimed at digital artists, designers, and all those who have become curious about the world of crypto art and NFTs. However, if what got you here is not just curiosity but a genuine desire to become part of the world of crypto art, either as a creator or an investor, it's time to start investigating all the facets of the phenomenon without just getting carried away by the hype, but by actively participating in the change. We are here to help you better understand how to position yourself within the crypto art market and prepare for an incredible new expansion of the art world.

CRYPTO ART VS. TRADITIONAL ART MARKET

Crypto art is a very new artistic movement through which the artist produces artwork in the form of still or motion pictures, which are then animated in collaboration with the computer, and distributed using blockchain technology.

The blockchain is a distributed system that enables anyone to upload data, images, videos, and any other type of digital resource to a secure and stable virtual register that allows to identify ownership, track movements, and give a unique value to one's work. Crypto art is a movement that subverts traditional art because the blockchain network does not present any barrier, neither for artists nor the consumers.

The change brought about by this new

technology is making the rounds of the web, and it's all anyone is talking about. Curiosity regarding the phenomenon and what changes it could bring to the art world as we know it has increased. Basically, when the work of art, for instance, the image in digital .jpg format, is transformed into a token, it becomes part of the artist's cryptographic portfolio. And when a creator adds a digital asset to a digital gallery, a token is generated and deposited in the artist's wallet through a smart contract that acts as a regulator of the system and is based on the same clauses as an ordinary agreement. Still, a smart contract is entirely automatic and does not require intermediaries.

The token is indelibly linked to the artwork and is a unique asset that represents the ownership and authenticity of the underlying artwork. Once offered for sale on Ethereum's blockchain network, the art piece takes on a unique code, solely attributable to it, thus distinguishing its content. This way, this single image can be distributed in multiple nodes of the network and can always be sold while keeping unchanged code and metadata,

like, for example, the properties that describe the work itself and can be identified conceptually as the only digital resource or asset available. It is confirmed at this point that anyone can see the work, which can be reproduced countless times. However, its copies are not very valuable. The token associated with the art piece, on the other hand, is the real work of art; it is unique. Like physical galleries or museums, blockchain-based platforms allow anyone to come in, admire the artwork, and browse through it. But even though the work remains visible to all and is reproducible, only the collector who buys it can claim ownership of what the artist has called the original, the unique token of the work. Of course, the buyer must understand that they own digital artwork and not a physical object to hang on the wall. And here, many prejudices belonging to a generation that evaluates the value of the object for its material weight rather than its intrinsic value — a concept that millennials and subsequent generations often better understand — must be debunked.

In traditional art, several factors make a

specific piece of art valuable, such as its provenance, condition, authenticity, display, and quality. By linking digital art to non-fungible tokens, it is possible to trace similar characteristics, such as authenticity, to traditional art in crypto art. Yet, as with economic currency, the commercial value of the artwork is based on collective intentionality. Indeed, value is not objective nor extrinsic; the human stipulation or statement is what comes to give commercial value to the artwork.

What many tend not to consider is that the way things are done today has changed. It's true of gaming, finance, real estate, and collecting, but there is still a bias against digital art. The problem that arose for digital art was its reproducibility, the loss of its aura due to the possibility of copying it, as postulated by Walter Benjamin. However, crypto art has definitely brought uniqueness to the digital world. Although some artists question its ability to compete with the traditional market, the crypto art market is growing fast. Damien Hirst has even announced that he is riding crypto art by

putting up for sale as many as 10,000 original works created long ago on paper and currently locked away in a vault. Hirst said his creations are about to come to life through the launch on the blockchain, at which time they will exist as NFTs.

Digital art exists since the advent of computers, and digital art's significant challenge - rarity - has been overcome through the emergence of NFTs. NFTs work on a decentralized basis, eliminating the middlemen in the physical world for traditional art. Some platforms allow artists to manage their work and get royalties and commissions on primary and secondary sales, all based on a trust system built by the network itself, where the parties do not need to know each other to proceed with the transaction.

However, the aspect that remains tied to the traditional art market is the artwork’s valuation, which is appropriately subjective. Artists who are already famous surely have a way to raise the prices of their works and are more likely to see their art pieces get bought due to the possibility for the buyer to make a

future profit or for simply collecting it. But it's a substantially different market, more democratic and open to young emerging artists who have been experimenting with the digital environment for a long time. Digital art has never replaced traditional art, and NFTs probably won't either because conventional art is historically influential enough to be supplanted. Its value persists to this day. Indeed, one might say it has gained even more, not in the sense of money, but rather in the sense of possibility, openness, newness, and freshness.

Cryptographic art is one of the few artistic movements of this millennium that speaks the language of its time, a new digital expression tailored to the new generation of collectors and creators. If until recently, an artist who created digital artworks had very few chances to put them on the market due to their infinite reproducibility, today, thanks to the blockchain, these digital artworks are made in limited edition, and therefore, acquire an exchange value.

Unlike in the traditional art world, crypto artists do not ask permission from gallery

owners, agents, auction houses, or others to share and sell their works. They simply leverage the blockchain and decide on their own to showcase their work and make it available to the public.

CRYPTO ART: AN OVERVIEW

To be concise, crypto art is an art movement that uses blockchain technology for its creation and distribution. Blockchain technology is a system that works in such a way that anyone can see the data recorded on it. It is a kind of database in which the registered data comes to form a chain and moves according to the following rules:

- ✓ It is not possible to delete or modify the data enrolled in the network in any way. You can only add more data to the existing chain.
- ✓ Every time you add a block of data, the system performs a complex calculation to validate the process through the so-called "Proof of Work."
- ✓ Any changes you might want to try

to introduce will be instantly rejected by the network.

With blockchain, it is possible to keep track of every transaction without them being manipulated nor modified in any way. The integrity of the entire system means that there is no need for intermediaries within the transaction, but that the traders have to trust one another without knowing each other. Blockchain is a decentralized or DeFi application, where no central computer acts as the authority for the network. Still, the power is distributed along with a peer-to-peer network, an architecture where all the computers involved act as both clients and servers. This system, created against information monopolies, ensures transparency of history while protecting privacy.

Encrypted art and blockchain are closely related. This technology allows you to create something digital that is perfectly equal to or more valuable than its physical equivalent. Blockchain-based non-fungible tokens (NFT) enable users to own digital assets outright.

However, ownership of digital assets is fundamentally different from physical ownership because the digital assets or resources are kept in the digital wallet of the creator or collector. Then, the digital file, the token, cannot be reproduced as it exists as a unique code. In other words, to have a copy of the same work of art online, it is necessary to buy or create a new edition of it, for instance, a new token. It is defined, in fact, as non-fungible because of its intrinsic property that cannot be interchangeable.

An NFT introduces scarcity and its associated value within the digital context. Before the advent of blockchain technology, it was almost impossible to assign a value to digital artwork, given the possibility of duplication. But thanks to the blockchain and NFTs, a new market was born; that of crypto art. The blockchain or decentralized and distributed technology in which crypto artworks travel is Ethereum. Ethereum aims to develop smart contracts through the payment of an ether fee or EHT, which corresponds to the cryptocurrency. A peer-to-peer platform

based on smart contracts, Ethereum was created in a programming language that travels through this network upon payment of a computational unit of account. In addition to being a cryptocurrency, Ether is also meant to be a fuel for operations and transactions from one wallet to another. During its transfer, and once the token has reached the destined digital account, the token remains the only copy, changing only the ownership of the artwork. Blockchain technology thus makes it possible to preserve the uniqueness of the digital information transmitted, and in turn, its value. The transactions take place in cryptographic form. Therefore, the only recognizability of the token, even once sold, is that of the author of the NFT.

What crypto art has managed to combine is the interest of young artists, both in creating works of art on a materialistic level, which includes drawings, paintings, and sculptures, and in the digital world, through networking and new technologies, such as blockchain. While blockchain can be used within many industries, it is in the art that it is now finding great buzz thanks to interested creators and

investors who want to own something innovative and valuable.

An NFT can be anything, from a still image to a GIF, a video loop with or without sound, a song, and more. Once placed inside the Ethereum blockchain, these assets become tokens and can remain safe and inviolate, immutable, and indivisible. Simply put, the created file has become "tokenized," for instance, linked to something digital inside the blockchain, and tokenization is crucial to prove ownership of that particular asset.

At this point, the created token is not the artwork yet. Rather, it attests to its ownership. To generate the crypto art, extra information must be associated with the token, like a kind of metadata, among which is the link to the image, GIF, video, or song that you want to turn into NFT. Here, some doubts might start to arise. For example, you might think that once the NFT is created, the artist might modify the asset or that the host of the asset might disappear, but there are solutions for these types of problems.

The NFT is not the created artwork per se. Rather, the created token and asset represent the full encryption. So, even if someone copied the image, that copy would not matter because a copied item does not generate the same value as owning the original and certifying ownership. The ability to reproduce the image is not a problem for the crypto art market because it does not limit the ability to sell it; the NFT has an official artist value. NFTs indicate the official version of the artwork and revolutionize not only the way art is created, but disrupt the entire system of selling and buying as they can involve many more people, both emerging artists and investors.

Art and collectibles are a new and alternative type of investment. The value of NFTs is technically undoubted, but where is the value of a reproducible digital work, even if it is unique? Art is a personal thing that communicates with people. Even if you can't experience it firsthand, you can't touch it. Besides, some works tend to mark eras. Crypto artists don't just add pieces to the

blockchain; they tell a culturally significant story of the technology itself as it develops. Digital galleries, like Nifty Getaway, Known Origin, and SuperRare, make a difference here as they pave the way toward experimentation and allow investors to support their favorite artists. Crypto art expands the limited opportunities to showcase and sell digital art at special events or gatherings on platforms. Besides, crypto art has the potential to expand the reach of digital artwork into the traditional art world, which is still hesitant to embrace digital art.

CRYPTO ART - BRIEF HISTORY

We are witnessing the birth of a new way of making art, creating community, buying, and investing. Although many have been exploring the concept of digital scarcity through the idea of selling art on the blockchain for quite some time, blockchain development is still ongoing. Traditionally, ,the general idea is that if something can be copied and replicated for free, its value drops; however, this market perspective now appears to be outdated in relation to digital art. Most collectors believe that for art to have value it must have a measurable and verifiable scarcity. Blockchain solves this problem for digital artists by introducing the idea of verifiable digital scarcity. Each artwork is associated with a unique token

issued in the blockchain.

The first step in creating the crypto art marketplace was Joe Looney's Rare Pepe Wallet, which paved the way for the possibilities of buying, selling, trading, and giving away digital artworks on the blockchain. Joe and his community not only conceived of the first marketplace of its kind but were the first to prove that it could work on a large scale, selling digital art for millions of dollars. Rare Pepe Wallet were the pioneers of blockchain communities where anyone can buy, sell, and trade artwork, the first to offer these services without paying commissions, and the first to create digital artwork tied to the blockchain that changes its representation depending on where it is displayed, thus also proving that rare digital art can exist in the physical world as well. This was in 2016, and it followed another digital scarcity project on the blockchain that

was related to online games, Spells of Genesis. The difference was that with Rare Pepe, it was possible to create your own custom card and, thus, have a digital asset entirely of your own.

Rare Pepe was built on Counterparty, and in the wake of its success, we witnessed the birth of many other projects. Among the most famous of those is CryptoPunks, which allows you to collect avatars in low resolution and with different peculiarities, or Dada.NYC. These projects are very different from each other, but they established a model for the functioning of art in the blockchain. The thinking that has driven the revolution is decentralized ethics, which allow communities of artists to create a secure and profitable business model.

Once the opportunity to make money was understood, projects like Cryptokitties, based on Ethereum and allowing people to buy,

collect, and breed tiny virtual kittens, exploded. After that, more and more blockchain-based projects were launched, and these became increasingly diverse. Among them are SuperRare, KnownOrigin, and DigitalObject. Although their offerings were quite similar on the surface, the artists and creator communities differentiated each project with their different approaches. The success of these galleries was initially due to the lowering of gallery commissions for primary sales and constant recruitment from below. Artists also began to tokenize their work in order to curate the presentation of their image on the blockchain, where they could curate both the look and feel of the user experience. This ability to take total control of the process also produced a gradual simplification of the tokenization process that led to an increasing interest in crypto art.

The art born with blockchain presents a

whole new aesthetic and represents a new movement in the art world. Computers and the Internet have accelerated art's movement toward ubiquity and freedom, but through the blockchain, a digital artwork can now be as unique as the Mona Lisa. Thus, the process of liberalization has been reversed by reintroducing scarcity and authenticity.

CRYPTO ART - 14 KEY FEATURES

While no single crypto artist or crypto artwork can be uniformly defined, it helps to examine many common factors that have shaped the aesthetic and the community to date.

1- DIGITAL NATIVE

For the first time in history, artwork can be created, edited, purchased, and sold digitally and without intermediaries. A crypto artist can sell their work immediately, avoiding the long lead times involved in selling physical artwork and gaining many advantages, including the following:

- commissions on the sale are either low or zero
- can benefit from a percentage on secondary sales (royalties)

● has complete control over pricing and independently manages discounts or promotions
● is exempt from returns
● does not need to consider packaging or shipping
● can sell internationally without considering customs barriers or restrictions
● can freely exchange and give away artwork
● can capitalize on an existing physical artwork

In addition, any artist or collector can keep the artwork by storing it at zero cost in their wallet and have it available at all times to earn revenue. These advantages are already quite remarkable!

2- COLLABORATIONS

Crypto art platforms make it easy to tokenize digital and accessible art while also offering a new and attractive revenue opportunity. These NFT and crypto art marketplaces are

also very inclusive in that they don't focus on an elite market segment but encourage emerging artists to create and earn fees.

One of the most notable aspects of crypto art is precisely the communities who gather around the platforms. Most marketplaces provide informal groups in chat apps like Telegram that allow for exchange and communication between crypto artists, collectors, enthusiasts, and founders in an unprecedented way. The groups are diverse and international and come from a wide variety of backgrounds, including developers, scientists, and artists. Thus, they tend to form truly multidisciplinary art collectives. What unites these people is the communal and inherently collaborative nature of the crypto ecosystem, an absolute abundance of innovative creativity, and the enthusiasm to imagine something different and push the boundaries of what’s possible.

Moreover, crypto art is a new and dynamic

market that inevitably attracts many disparate companies. This benefits artists who find themselves involved in exciting collaborations with brands that want to become part of the crypto world. For example, Pringles, the famous brand of salty snacks, has had a digital artwork created by artist Vasya Kolotusha: "Cryptocrisp," a 1080x1080 MP4 file depicting a golden Pringles can, is "the first virtual NFT flavor." The starting price for one of the 50 limited pieces offered on Rarible was about $2, and now, in less than a month, it's at over $2000.

3- GLOBAL

Artists from all over the world are participating precisely because of the blockchain's power and possibilities. This is why crypto art can be defined as a global movement with no barriers. With digital art, there are no longer any power centers, trend-setting galleries, or agents who make the best

and worst of things. Instead, what matters is having an artistic verve, standing out from the crowd, and creating your own dematerialized place on the Internet where you can display your art and, thus, enter the market.

4- DEMOCRATIC/NO PERMISSION

Browsing through the online galleries, it is clear that everyone is encouraged to participate; there is no distinction among gender, class, age, creed, etc. Crypto art also redistributes power in the art market. Virtual galleries grant everyone access, like a kind of public museum. Indeed, blockchain and crypto art will change the way museums are enjoyed. For instance, even the Guggenheim Museum in New York is adapting to the new trend and looking for an expert in the field—not only to better understand the phenomenon that is overwhelming the market but also to

intervene directly in the collection by planning an acquisition strategy and knowing where and how to invest. Museum executives have defined crypto art as "a fast-growing and highly desirable area for the art world." Will blockchain technology change the way museums define their missions, methodologies, and functions? The Guggenheim is among the first of major museums that are beginning to take the NFT topic seriously. Sotheby's has also recently chosen to enter the NFT market and set its sights high by betting on the Pak artist who managed to earn a million dollars with one of his NFT works in December 2020.

Finally, Phillips, another historical traditional auction house, has entered the great vortex of cryptographic art with the announcement of Replicator, a work by Mad Dog Jones that is able to generate new NFTs every 28 days. It's being auctioned off on the fashion house's website from April 12-23, with a starting base

of $100.

Apparently, times are rapidly changing, and so are technologies. It's imperative to master virtual art and, potentially, make yourself accessible to the entire globe.

5- DECENTRALIZED

Crypto art is designed to reduce centralized power and increase the autonomy of artists. This allows them to break down the old canons of the art community and open up to an infinite audience without the need for intermediaries. In the traditional art world, intermediaries are galleries, dealers, auction houses, curators, and pretty much anyone who stands between the artist and a collector. For NFTs, intermediaries take the form of minting platforms. To create and sell crypto art, it is hypothetically possible to do everything yourself. What happens in practice is that you still need to become known and build distinctive and profitable personal

branding.

6- ANONYMOUS

Every artist can choose to remain anonymous if they prefer. Anonymity allows for greater freedom from attacks or social criticism. Moreover, to cite Banksy's example, anonymity can also increase an artist's fortune by fueling people's curiosity. For some artists who defy government censorship, publishing work anonymously allows them to take advantage of privacy protection. The anonymity of cryptographic transactions, on the other hand, could create an environment ripe for exploitation, theft, and damage to an artist's image, which doesn't help with copyright protection. Want a concrete example? Works could be stolen and turned into digital tokens without the artist’s consent. The 'theft' that many are complaining about is a classic digitization hoax. Physical works are copied, validated as

NFTs, and then resold. NFTs certify the originality of a file, but they do not certify its authorship.

7- VIRAL

The meme economy is now a fact of life. Some crypto artworks are bound to go viral and welcome it because this allows them to spread quickly. This also changes the rules for art patronage and collection paradigms, making the principle of scarcity decisive in the overall outcome.

8- SELF-REFERENTIAL

Crypto art is a niche world where artists and collectors often find themselves quoting other artists or themselves or referencing key events and personalities in the cryptocurrency world. There are plenty of examples of this happening precisely because crypto environments are community-based. Whether it's on Telegram, Discord, Reddit, or other social channels, artists and collectors are

constantly conversing and engaging with each other and generating debate. Thus, it is inevitable that they quote each other within their works and are less referential toward more distant forms and modes.

9- PRO ARTISTS

Commissions and the costs of realization are drastically reduced. Also, each artist can obtain revenue from secondary sales through royalties. The advantages for artists are considerable, and it is interesting to see the birth and development of a phenomenon that allows artists to disseminate their art directly, establishing new relationships independently.

10- CHALLENGING TO EVALUATE

Crypto art is an environment that cannot be judged by traditional canons because these would kill the peculiarities and innovativeness of this type of art. For

example, some of the criteria used in conventional art settings include the state of conservation of the work, the technique adopted, the support, the size, the participation in famous exhibitions, and more. These criteria simply are not applicable to crypto art. This is a new artistic expression that should be looked at with humility and curiosity, while taking into consideration that judging a work for its creativity, power of expression, and general artistic merit is highly subjective. It’s important to remember that the purchase of a work also includes the emotions of the collector.

11- MATERIALIZABLE

NFTs are now a worldwide trend. Creators and collectors are emerging every day. Therefore, new products similar to digital displays or picture frames are being launched to reproduce their NFT artworks. Until now, NFT enthusiasts and collectors have kept

their precious NFTs in a cryptographic wallet. Thanks to these devices, they are able to enjoy the purchased art by displaying it on the wall, like a real painting or video. The displays are integrated with major NFT platforms and have a slim design that can make the artwork or entire gallery of artwork stand out. No apps and no configuration are required; it’s just a forever looping video or picture. With digital frames, you're not buying a gadget; you're purchasing a moving image that can be played back for entire days thanks to high levels of battery life. It is interesting how the world of crypto art is forming a new art market and new interesting commercial possibilities. This market, we are certain, will constantly evolve in line with the needs of the artists and collectors who comprise it.

12- THERE ARE NO COPIES, ONLY ORIGINALS OR

DIFFERENT EDITIONS

Collectors who purchase digital art own the works securely through Ethereum cryptography and can sell or trade the work when the demand for art is high. If a piece is sold or traded, the artists still have authorship attribution on each piece, ensuring that all credit ultimately goes to them. Although many have questioned the uniqueness of digital artwork, NFTs have reintroduced the principle of scarcity and renewed it. Today, even digital assets can be rare. From an investment perspective, it is essential to distinguish between single or multiple editions. In the past, multiples were a way to democratize the art of artists such as Duchamp, Picasso, and Warhol. However, in the age of the internet and social networking, artwork multiples present a new social value. With the generational shift in art collectors, the collection paradigm has also undergone fundamental changes. For younger collectors,

the dividing line between fine art and trendy products has blurred, and exceptional works of art that truly stand the test of the market will not diminish market value; instead, those features only make the artwork more valuable. It's time to re-evaluate the principle of scarcity.

13- FREE ADVERTISING

Crypto art allows even the most emerging artist to make a name for themself. They can manage advertising through social channels —for example, Telegram or Twitter, which are the channels where fans are often found and where investors are also present. A crypto artist is often self-taught. This is a plus and a disadvantage if you don't have the technical skills to make yourself known and market yourself effectively.

14- VALUE OF THE ART = VALUE OF ETHEREUM +

COLLECTABILITY VALUE

When considering the potential value of an NFT work, add these two crucial factors: the cryptocurrency used (Ethereum, for now) and the work's collectability value. The value of Ethereum is constantly evolving. For example, from 2020 to now, it has risen +1100%, currently arriving at around $2000. Moreover, some estimate that, thanks to interesting news for the summer of 2021, it may move towards $5000 by the end of the year, with an average of $3500. Warning: cryptocurrencies are highly speculative, volatile, and unregulated. They represent both considerable risk and the potential for multi-million-dollar gains. You need to consider this when entering this world.

In addition to monetary value, collectability value must be considered. A collectible is any item of interest or value to a collector. Collectible investments are typically

"emotional assets," meaning that the emotional component—and often the hype that revolves around an artist, a work, or in this case a technology—make a difference in determining the value of an NFT artwork. People tend to want to collect what they have heard a lot about—something exclusive, sought after, and able to, potentially, make them rich. You could say that crypto art and NFTs move the concept of ownership and possession into a whole new field. We talked about the purchase of Beeple's and Grime's works at auction. Of course, "bragging rights" the right to brag about works that in reality are usable by all, but are in possession of the buyer only, are also significant. In crypto art, considerable curiosity and potential fame develops concerning the purchasers of particular works that have become trendy. The criteria used to determine the collectability value of traditional work do not fully cover the crypto world. They are

evolving and yet to be discovered, meaning that they are often difficult to predict as well.

OPPORTUNITIES AND RISKS

Once the revolutionary reach of NFTs within the art market was established, a number of overlapping ethical, logistical, and environmental issues arose. Many people, especially artists and other members of the maker community, have pointed to the severe ecological impact that the explosion of ether minting and NFT trade will have on a planet already ravaged by climate change, climate-related disasters, inequalities over environmental exploitation in different parts of the world, and unequal distribution of resources. What do NFTs have to do with climate change? The process of NFT tokenization occurs by adding tokens to blockchains, which, combined with the surge of commercial transactions, including a huge

amount of bidding and reselling, involves significant energy use. Ethereum currently runs on a paradigm called Proof of Work or PoW. The PoW algorithm is very processing-intensive, and with the rise in popularity of NFTs, it has become too big a problem to ignore. Multiplied to the nth degree, in a market driven by the desire to keep up, it has resulted in a new form of environmental destruction. Every transaction on the blockchain requires a transaction cost, called a gas cost, that corresponds to the computation that is performed and the computing power. It is estimated that a single transaction costs an average of 82 kWh, with emissions of around 106 lb (or 48 kg) of Co2. On average, the expense of a single issue is equivalent to driving a gasoline car 1,000 kilometers. Moreover, a single NFT can generate several operations that can be classified as transactions: from minting (i.e., the creation itself) and bids when an NFT is

auctioned, to transfers of ownership.

Much of the information regarding ecological concerns about NFTs stemmed from Memo Akten's important articles: “The Unreasonable Ecological Cost of CryptoArt,” Part 1 and Part 2, published in December 2020 on *Medium*. NFT art’s offer of verifiable digital scarcity and proof of ownership is an unquestionable advantage, but it also comes with a significant carbon footprint. Akten pointed out that, for multiple editions, the figures are comparable to dozens of transatlantic flights. These results have overturned the optimism associated with the cryptocurrency market as a magical space freed from old gatekeepers and middlemen. As a result of her articles, a large number of grassroots movements have sprung up with the goal of zeroing out the energy waste produced by the NFT market. Artists, activists, and theorists are creating concrete

responses and debates with the intent of generating a completely new politics of art on the blockchain.

Importantly, new opportunities arise from here. Led by Akten's example, many are moving to solve the gas cost issue, starting with Ethereum and other marketplaces like OpenSea. Ethereum, the platform that hosts the blockchains to which NFTs are anchored, is committed to moving to a more environmentally friendly form that also keeps systems secure and functioning—called proof-of-stake—but this has not yet actually happened. It is unclear when the change will happen. The constant research that takes place on these platforms is essential and must pursue a conscientious model. The NFT market is rapidly growing and unstoppable. A more ethical alignment will also help make profit more responsible through greater transparency. Moreover, the publication of

data by platforms like Nifty Getaway will be able to help shed light on and expand the scope of the actual energy expenditure behind the crypto art market. In response to hard calls to address this problem, marketplaces say they can solve it in a few years.

HOW TO BECOME A CRYPTO ARTIST, STEP BY STEP

The time has come to delve into the actual creation of a non-fungible token. A crypto artist's goal is to create digital artwork to display in digital galleries and eventually sell in exchange for digital currency or cryptocurrency. First, you must create a digital artwork that comes from your own artistic expression and narrate the story of the creation process through social media or an article. Every artist needs to be able to share their creation experience to let people know about the work they are doing through special programs that can express their artistic concept. After that, you can dive in to the technical creation of the NFT.

STEP 1: CREATE A PHYSICAL WORK OF ART AND DIGITIZE IT, OR CREATE A DIGITAL NATIVE WORK.

One language designed for generative art is Processing. A JavaScript library that does the same things on the web is p5.js. Remember: every artist and every work of art has a story to tell. Share your story on Medium or sites and blogs specifically dedicated to the crypto world (for example, CoinDesk, Nonfungible.com, CoinTelegraph, Ccn, TodayOnChain, Bitcoinist, Bitcoin magazine, CryptoSlate, Null Tx, Daily Coin, and many others).

STEP 2: CREATE YOUR CRYPTO WALLET.

To create a work, you need to have a wallet. We recommend MetaMask for desktop or Cipher for mobile. MetaMask is known for

being very easy to use and configure, but you are free to evaluate other wallets, such as the following:

- Rainbow
- Coinbase
- Enjin
- Exodus
- Trust Wallet
- Pillar

MetaMask allows you to quickly and securely access many popular NFT platforms. Moreover, you can install it directly into your browser in the form of an extension. To activate it, you will be provided with a private key (a kind of PIN to access your account) that you need to write down on a piece of paper and keep in the place you consider most secure. Without the private key, you will lose access to your wallet. Along with the private key, you will also be provided a public key (a kind of account

number, if you're thinking in banking terminology) that you will be able to use when receiving payments or other digital works. You can create NFTs totally free of charge, without having to have any Ether in your wallet, but only some platforms allow it. In any case, putting Ether in your wallet allows you to better understand how it works; therefore, it improves your ability to manage it.

STEP 3 - CREATE A NON-FUNGIBLE TOKEN (ALSO FREE).

Minting platforms make it very easy to create NFTs. You can choose from platforms such as the following:

- Rarible
- Mintable
- Cargo
- And many others...

Keep in mind that many platforms allow you

to create an NFT wholly free of charge, but just making the artwork and then adding material in Ethereum requires computing power and that power corresponds to a gas. Just like cars that need gas to move around, computers working on Ethereum require gas to move things around. Young up-and-coming artists without cryptocurrencies or looking for an ultra-low risk option can create NFTs on the Mintable platform.

Mintable allows you to create NFTs without owning Ether. For now, it is the only platform that will enable you to create a collection without paying any fee, but others are sure to be born soon. The transaction fee is paid at the time of your first sale. Registration is effortless, and you will receive a code via email to confirm your registration. At this point, you can start.

To create the token, just click on "mint an item" in the upper right corner. Then, you can

create a new item or import one based on the token. By clicking on "create a new item," you can create your own NFT from scratch and for free. It is important to continue the process by entering a series of information about the type of token you will be selling, such as the title and subtitle. You can attach images, zipper files, videos, etc., of which an entirely customizable further description is required. Finally, you can set the price in Ethereum or set an auction with a starting price and a maximum time duration. Setting the category of the work is particularly important. Once you click on "List this item" at the bottom, the artwork interfaces with the wallet and notifies you that you are sending a transaction on the blockchain that needs to be signed through the wallet. Now that the token has been created, you can view the relative ID, which is the code relative to the creator, and the generated smart contract.

STEP 4 - SELL A NON-FUNGIBLE TOKEN

This is the most delicate part of the whole process. Even on Mintable, where you can easily sell your work, getting known is not easy, especially if you are a beginner. To enter and sell through the proper circuits, it is necessary to ask for exposure through popular galleries. Among the digital galleries, Knownorigin or SuperRare are two of the best, but you need to be selected to become part of their exhibiting artists.

In a short time, you will discover that selling works online is not very different from selling physical works. For instance, detaching yourself from a work created with commitment and passion is always difficult to overcome, even if the work is digital. The exciting thing is that once you earn your first ether, you might think of putting up your own collection on a platform where you can

collect the works you own.

It is essential to keep in mind that some platforms allow you to set royalties on works sold. In this case, the percentage should be set at the time of creating the NFT. This allows you to earn money through secondary sales as well, provided that the royalties are transferable from one platform to another. The royalty system differs from market to market.

Remember to check periodically for offers to purchase your work. Be aware that offers can also be withdrawn. If, however, you are satisfied with the proposal, it is time to sell.

STEP 5: BECOME A PATRON (AND POTENTIAL FORWARD-LOOKING INVESTOR)

Consider donating your artwork and perhaps asking to receive artwork as a gift.

Feed the crypto market by investing in your

own work, creating your own small collection of other people's work, or donating or investing in various projects to feed the world of crypto art. Promote it and make it known to a broader audience. Be an enlightened and generous patron. When you least expect it, this could be not only a noble and priceless act, but also a wise and disruptive investment that might change your life.

BEST CRYPTO ART IDEAS

However, before you start making digital art, you need to know the types and create something that is memorable and reflects your idea of personal art. There are various ideas to take inspiration from and techniques to experiment with in order to fully express your feelings and find the right path to channel yourself into this vast world of crypto art.

1- Digitized Art. Several artists have decided to tokenize their artwork. The introduction of a new, democratic, and innovative market has indeed intrigued the world. In his iconic example, Bansky, thanks to blockchain, digitized his work Morons (White) and then set fire to the original version, thus giving even more value to the

uniqueness of NFT.

2- Collage. If you come from the 90s, you already know what we're talking about. Modern collages are created digitally and are an excellent way to communicate an idea, an impression, or an opinion. Style is created through images that are cropped and juxtaposed consistently with the artist's intent. This process also requires special skills in graphics programs and is a widely used and alternative art mode.

3- Digital Photography. Whether from a digital camera or smartphone or tablet, a digital artist can create effects that were once unthinkable. Photos can also be artistically manipulated to create different desired results. Digital images enable photobashing, which is the combination of multiple photos into one to make a realistic but impossible work that challenges the plane of reality.

4- Digital Painting. Digital painting can

be both 2D and 3D and is suitable for professionals. You need a graphic pad and pen, and its purpose is to replicate the effect of brush and colors. There is also a type of automatic and fully digital painting called dynamic painting. The idea of art being released from human intervention is revolutionary and, indeed, a great source of inspiration.

5- Digital Illustration. If you are looking for a traditional but timeless art form, illustration allows you to explore and invent your own style rules. It is particularly suitable for those who want to experiment more with drawing using a combination of illustration and editing software.

6- Motion Design. Finally, many motion designers can start to take on the mindset of established and refined artists thanks to NFT. Digital sculpture comes to life thanks to motion graphics, and entire collections flourish. Motion design is for those who want

to charge their art with good storytelling and communicate a message.

7- Pixel. This is achieved with low resolution images and is the style of the famous CryptoPunks, but with pixel art you can recreate images that recall the style of 80s video games, which had limited resolutions. This type of digital art is perfect for those who have a retro style reminiscent of Lego bricks.

8- Isometric Art. Although this form is stylistically similar to pixel art, it focuses more on the 30° camera angle that gives the impression of seeing three sides of an object at once. This type of art is more restrictive and with more precise rules from the worlds of engineering and architecture.

9- E-literature. E-literature or digital literature is cross-sectoral and still difficult to define. It concerns literature that is born and spread through the digital medium, including

electronic poetry, collective novels, and interactive stories. It is a new way of understanding a very ancient art and is a perfect way to express one's vision in a mixture of image and words.

10- Fractal Art. Fractal or algorithmic art is a type of art that includes the use of mathematics. It is true digital art or computer art in that it is modern, generative, technological, and surprising. It is made through computational software that reproduces fractal images. It's perfect if you're a person with a unique technical background and love for math and want to declare to the world that art can belong to modernity and computers.

HOW TO SELL CRYPTO ART

Selling an NFT is not just selling the image, video, or GIF; it is selling a real digital asset. NFTs are often traded between marketplaces the way stocks and safe-haven assets are traded. Arguably, many people enter the non-fungible token marketplace because they hear of instances of resounding sales and intend to make seemingly easy money.

For an emerging artist who wants to be part of the crypto world, it's essential to know where and how to position themselves within the major marketplaces, but, most importantly, it’s important to recognize that success doesn't come suddenly, even if it sometimes appears that way. It's made of constant learning, creativity, patience, and

tenacity. Beeple, for instance, spent years developing his skills and building his community. Being a curious and resourceful artist can prepare you to best approach this new movement. Moreover, it's also imperative to understand that it can take a varying amount of time, depending on your personal journey, to study, learn, and experiment with NFTs before you start selling in earnest and see possible gains.

Either way, the key to success is to try. Focusing on the work and continuing to create art is imperative. What can make a difference is addressing a particular niche, a narrow and profiled audience, and creating something that is particularly suited to the interests and needs of that target audience. Create and deliver something of value. It's vital to not only think about the potentially passive and spectator audience, but to aim to create or be part of an active community that

interacts, shares, and supports this new world. The largest crypto artist communities are mainly on Twitter, Telegram, and the leading dedicated marketplaces. They are spaces where you can exchange ideas and projects, promote yourself, and create new connections, opportunities, and inspiring collaborations.

Once you have taken these first steps inside the crypto world, it is time to devote yourself to selling your NFTs. First of all, it is advisable to tour the marketplaces and compare the prices of works to determine which range to position yourself in, keeping in mind that the gas cost, whether the buyer or the seller pays it, can sometimes be higher than the price of the token itself and that few still know about or have Ethereum to invest in crypto art. Several platforms are closed and work by invitation only. Others, which are open, like OpenSea, have gas costs that have

to be paid when the work is created. To start selling on the principal platforms, you need to connect your wallet and make your NFT. You can create entire collections and, on some of them, set a percentage of earnings on secondary sales—i.e., royalties. It is advisable not to overthink these incoming costs, though, because uploading works to these galleries allows you to increase the value of your art for the simple fact that it is there and visible in a place specifically designed for that purpose and recognized as necessary by the audience. In addition, people are potentially more likely to spend substantial money on works that have been on display for longer on crypto art platforms.

Among the best techniques to succeed in selling NFTs, even though intermediaries are eliminated on the blockchain, is to have a good community on social networks. Social networks really work as intermediaries for the crypto art world. It is essential to create your

own network of collectors to communicate new releases and sales. Gaining followers is not always a simple thing. It takes dedication, practice, and commitment.

Our primary tips for emerging in the world of crypto art are:

- Commit to joining and actively collaborating with a community of crypto artists.
- Stay authentic to who you are, what you choose to offer, and the message you want to communicate.
- Market yourself. Being a marketer may not come naturally to you, but make sure it doesn't hold you back. Learn how to make genuine and meaningful connections with your audience, and you'll see the results.

Here are some of the most important tips according to crypto artist Trevor Jones:

1. Master your art form by continuing to

study, learn, and experiment.

2. Build your brand by applying marketing skills at this stage.
3. Develop a recognizable style, and tell the story of your creative process.
4. Learn how to write a good press release, and get to know journalists in the crypto world.
5. Hope for the best. Prepare for the worst.

PROMOTE YOURSELF

To be able to sell, to emerge from the masses and make your fortune, the necessary skills remain the same: the artist must be known, as their signature may be more valuable than the intrinsic qualities of their work in a speculative marketplace. What varies concerns the marketplaces and sales platforms chosen. Traditionally, it was the galleries, with their closed systems and

barriers. With crypto art, there are multiple platforms that offer alternatives and allow artists to leverage their personal branding on the web to gain an ever-growing audience. If an artist is able to promote themselves, as in the case of Beeple, they may find it easier to gain a following than in the traditional system. Competition in crypto art will increase in the future. That's why we suggest that you start now. To make your way on your own in this field, you need to know journalists, create genuine collaborations, write good press releases, and enter the circuit of artists. The most used channels are certainly Medium, to tell compelling stories about your artwork, or Twitter, where, in addition to crypto artists, you can find a good circle of collectors. An interesting alternative is community engagement on Telegram or Discord. However, Telegram remains the number one platform in terms of the number of crypto users. Therefore, it is advisable to

create your own channels on these platforms. Traditional art is based on its own rules, but NFTs are available to a potentially wider audience that includes the entire world. Marketplaces for artists have, fortunately, come a long way, facilitating user experience and improving their overall design. Usability is a crucial issue as far as NFT buyers are concerned. The technical tools are there, but the artist needs to expand and enhance collaborations, influencers, and their social media presence, all of which are valuable tools in the arsenal of an artist who wants to get known.

TOP MARKETPLACES

Each marketplace has its own philosophy, and new ones pop up all the time. That's why you need to discover them, learn about them, and choose the best one for your art and your style before opening your own gallery. The platform can also make a difference in establishing the value and popularity of your works.

ASYNC ART (HTTPS://ASYNC.ART/)

Async Art is a recent art movement built on the blockchain.

Within it, you can create, collect, and exchange programmable art. This is art that can evolve over time, respond to a stimulus, trigger a reaction from its owners, or follow an exchange price. You can purchase both "Masters" and "Layers." A Master is a 1/1

edition artwork, while Layers are the individual components that make up the Master image.

Layers come with special abilities chosen by the artist. When you edit something on a layer, the master image will reflect it regardless of who owns it. Artists pick the parameters of their art and grant exclusive control over each aspect to individual collectors. For example, they might enable someone to modify the state of the background, the color of the sky, or the position of a character.

FOUNDATION (HTTPS://FOUNDATION.APP/)

The particularity of this marketplace is that it is curated by the community. In practice, the creators selected only the first 50 artists, who then extended invitations to others and created the community. Invitations are limited for now. To become part of the

community, it is advisable to make friends with members from whom you can then request an invitation—perhaps starting conversations with artists or collectors with common interests or whose work you admire. Sharing their work on social media could be a great way to make friends and build a relationship. On February 19, 2021, the famous gif of the Nyan Cat sold at a Foundation platform auction for $545 thousand in Ether.

KNOWNORIGIN HTTPS://KNOWNORIGIN.IO/

To become part of the gallery of Knownorigin, it is also essential to be selected. The process of selection ensures that the works are of an acceptable quality and follow the philosophy behind the platform. Most of the marketplaces present themselves through Medium, through which they share their philosophy and manage a blog section

dedicated to the major works in their gallery. Each digital artwork on KnownOrigin is authentic and truly unique. The Ethereum blockchain protects it.

MAKERSPLACE HTTPS://MAKERSPLACE.COM/

MakersPlace has been an active crypto art market since 2018 and is based in the United States. It is considered a high-value gallery.

The long list of creators with NFT sold on this market include names like Yura Miron, Silvio Veira, Dmitri Cherniak, Dreamonaut, and Frenetik Void, to name a few.

MakersPlace's primary focus is exclusive digital art, but it also features some less exclusive art. NFTs are based on the ETH blockchain. To gain access, you have to apply and be selected.

On MakersPlace, you have to pay a 15% service fee. We are not aware of any other NFT marketplaces that charge a higher

commission than this, but a few charge exactly this (15%). There are also 12.50% commissions for any secondary sales on MakersPlace, of which 2.50% goes to MakersPlace, and 10% goes to the creator as a royalty. These fees are separate from the Ethereum gas fees that the Ethereum network requires to process transactions.

Every digital creation on MakersPlace is digitally signed by the creator and permanently recorded and verified through the blockchain. MakersPlace provides and manages a unique digital wallet for each creator.

MINTABLE (HTTPS://MINTABLE.APP/)

Mintable allows you to create NFTs totally free of charge by ensuring that the gas cost is paid at the time of the first sale. Mintable is a cutting-edge platform in which Mark Cuban has invested and which has auctioned the

work of the 20th-century Ukrainian artist Wladimir Baranoff-Rossiné, whose works are managed by his descendants. The auction included an abstract painting from 1925 that had remained in the family since its creation and that was linked directly to an NFT on Mintable. In addition, nine digital representations of other Baranoff-Rossiné paintings, the originals of which the family will obviously retain ownership of, will also be sold with NFTs in three limited-edition auctions. This is a physical work certified on the blockchain by the platform itself. On Mintable, it is possible to buy and sell not only on the Ether circuit but also in Zilliqa with ZIL.

NIFTY GATEWAY (HTTPS://NIFTYGATEWAY.COM/)

Since 2019, Nifty Gateway has been owned by the Gemini Exchange company, founded by the Winklevoss twins, who are most

known for their lawsuit against Mark Zuckerberg in which they claimed Facebook ownership. The platform's mission is to make the world of NFT accessible to everyone. On Nifty Gateway, you can buy, sell, exchange, and show so-called "Nifties" (name the platform gives NFTs). There are also various collaborations among the platform and the best artists worldwide, among which the famous American painter Micheal Kagan, one of the first traditional artists to approach the world of crypto art, stands out.

To sell your works, you need to fill out an application, make a presentation, and wait for the selection process. Once accepted, each uploaded collection will be open at a specific time (a drop) and will only be available for a limited time. New drops are expected approximately once every three weeks. After a collection's initial drop closes or runs out, you'll only be able to get Nifties from that

collection in the marketplace. On Nifty Gateway, each time an artwork is purchased and sold, the artist gets a percentage of the sales. The artist can also decide on their own rate for secondary sales, which could be 5% 50%. Nifty Gateway takes 5% + 30 cents on each secondary sale to cover credit card processing fees and as an expense of running the platform.

OPENSEA (HTTPS://OPENSEA.IO/)

Founded in 2017, OpenSea supports NFT with ERC721 and ERC1155 standards. It is the largest NFT marketplace, containing over 200 categories and millions of assets. It provides a wide range of NFTs, including art, censorship-resistant domain names, virtual worlds, figurines, sports, and collectibles.

It, too, is open to anyone who wants to join, and you can add NFTs from different marketplaces. It has a rich blog section with

the latest news and guides to create and sell independently, but the most inspiring part is the activities section, where you can keep an eye on all the latest offers and trends.

PORTION (HTTPS://PORTION.IO/)

Portion is an online marketplace that connects artists and collectors through blockchain technology to buy, sell, and invest in art and collectibles easily with total transparency. It includes the Artist Community, a global network of decentralized creators and artists. Here, anyone can be a collector.

You can control your physical and digital collection in one place, simplifying cryptocurrency exchange with art and collectibles. Portion tokens are ERC-20 resources on the Ethereum Blockchain, and members can govern and vote on the platform's future in a decentralized way.

RARIBLE (HTTPS://RARIBLE.COM/)

Rarible is a platform that is suitable for everyone, even beginners, and it's open, which means that you don't need to be selected to start creating NFTs on Rarible. Secondary sales take place on Rarible's marketplace; there are royalty options, and both single items and entire collections can be sold in bundles.

Rarible is a community-owned NFT marketplace. Its "owners" hold the RARI ERC-20 token. Rarible awards the RARI token to active users on the platform who buy or sell on the NFT marketplace. Creators can use Rarible to "mint" new NFTs to sell their artworks, including books, music albums, digital art, or movies. Creators can also show a preview of their creation but limit the entire project to the buyer only. Rarible buys and sells NFTs in categories such as art, photography, games, metaverse, music,

domains, memes, and more.

SUPERRARE HTTPS://SUPERRARE.CO/

As with other marketplaces, to have a collection on SuperRare, you must go through a selection process. SuperRare focuses on being a marketplace where people buy and sell unique, single edition digital artwork. The team has to make sure that the works are original, created by real artists, and, most importantly, unique. On SuperRare, as anticipated, you can only sell single pieces and not series, and buyers have free access to the platform through MetaMask. Here, you can only use Ethereum for payments. The platform retains 15% of sales on the primary market and 10% on the secondary market for artists. SuperRare has also been chosen as a platform by *Time* Magazine, the famous American publication, which has auctioned three digital covers with

the help of renowned entrepreneur, investor, and influencer Anthony Pompliano.

THE MINT FUND (HTTPS://MINT.AF/)

Networks like The Mint Fund, which cover the fees needed for artists to mint their first tokens, suggest that real-life social ties are being built that are far stronger than the blockchain. Mint Fund is a community project created with the sole purpose of building a support network for artists interested in bringing their art to the world of cryptocurrencies like NFT. The project aims to offer resources to foster a diverse community by allowing artists to coin their work simply by filling out a form. Art has the unique ability to highlight inequalities globally and shine a spotlight on ongoing social movements. That's why initiatives like The Mint Fund are born and remain essential to the development of sustainable and

inclusive art.

HOW TO BUY AND INVEST

Buying crypto art is practically and technically quite simple. Once you understand how cryptocurrency and wallet work, what's left to do is choose. And for a collector or investor, this is a crucial step. Once you have purchased the desired amount of ETH through platforms like Coinbase, you need to connect your wallet to the platform where you want to shop.

Most marketplaces have an activity section that allows you to check the ranking of artists, and thus, choose the one that suits your tastes and what you want to spend. Besides, you can keep an eye on the artists who sell the most and on what kind of prices their artwork goes for. If you spot an inspiring artist, you can view their page and works, and then filter and sort the pieces from

the lowest to the highest price. Otherwise, on the main page, you can browse all the creations within a price range that don't necessarily belong to a single artist. Once you have identified the piece you want to buy, you can either purchase it right away or make an offer for the amount you are willing to spend and let the artist decide whether to accept your proposition or not. The purchased piece appears in the wallet in about 10 minutes, following the creation of the transaction on the blockchain.

Getting started with collecting is quick and easy as well. No middleman is required. If you make an offer to an artist and they decide to accept it, the piece will be awarded to you. This process is fast, usually immediate, transparent, and secure. Once you have acquired digital ownership of the work, anyone can take the entire collection with them at any time. You can then give it away to whomever you wish across the planet, and storing the digitally encrypted work becomes much more straightforward than owning a traditional piece. Both primary and secondary

sales are fully observable and transparent, but also completely anonymous if you wish. In the digital world, one challenge that is still considered impossible to overcome concerns the authenticity of one's work. However, today's platforms that sell crypto art in the form of non-fungible tokens have incorporated selling by selection. Selection allows for stronger input controls that will enable marketplaces to check that the artwork is authentic without preventing anyone from selling their art.

MAKE PROFIT

In the past, auction houses, billionaires, private collectors, and investors from around the world set the prices and values of works in the marketplace; these same interests will keep the NFT marketplace alive, active, and profitable for a very long time. Cryptographic digital artwork has immense capabilities, and it is inevitably taking over the world.

At present, solutions for issues regarding preservation, liability, and insurance are

gradually being found. As new instances emerge, improvements are being created. This living market does not stop; it improves over time, intending to gain more and more respect, credibility, and recognition, especially with the general public.

Soon, collecting digital art will become standard practice. Moreover, while traditional galleries risk being left behind, there is a golden opportunity to invest in an emerging, secure, young, and dynamic market that generates value at an exponential rate. The timing is optimal for investing: tokenized art is cutting edge, accessible, and in step with the digital times.

Investing at this time is profitable for several reasons:

● It is the token itself that generates value. By creating scarcity for a work that is potentially accessible to all, it is the artwork itself that produces value for its buyer through circulation.

● Total NFT sales during a single month in 2020 were $250,000. Today, in the same

month, the total reached $60 million, and the trend continues to move upward.

Profits will be huge and will increase because NFTs are not a temporary trend but a new way for modern generations to understand, conceive of, and collect art. Knowing the artists and following them on social networks allows everyone to verify their identity and achieve popularity. It is possible to choose the artists you are most interested in based on personal parameters or opt for those who break the rules and redefine a canon or those who have something to say and a story to tell.

If you still have doubts about investing in crypto art, just consider that the art market has always been resilient and has proven that it is able to renew itself and resist any collapse. Starting to collect today means being able to become, perhaps, a patron of the future or invest wisely to reach a higher level of liquidity in the not-too-distant future, given the speed at which new technological innovations travel.

LIMITING RISKS

It is not possible to know a world in depth without relating it to its potential risks.

One NFT risk is price fluctuation due to the number of people using the blockchain network. Each time you tokenize an artwork, you are creating a new block to add to the chain. To do this, a computing power is used that is expressed through a gas cost. More transactions simultaneously increase the price of this fee, and then the creation and sale of the work increase their value. The fluctuation of the value on Ethereum should also be taken into consideration.

Not all artists can afford to pay a high gas fee, which prevents them from expressing their art. In addition, platforms retain a commission on their sales, although this is not much of a real risk since platforms still charge a smaller commission than a regular art gallery.

A single Ethereum transaction requires the energy to power a computational network that eventually creates a new NFT and generates a

considerable amount of CO2. A frequently cited statistic from Ethereum's Energy Consumption Index pegs the average transaction at nearly 60-kilowatt hours or two days' worth of energy for an average North American household. This factor also contributes to the decrease in minted artwork, at least as far as artists who care about the environment are concerned.

NFTs took hold immediately, quickly, and competitively. On the one hand, they have allowed the sudden renewal of contemporary art, improving the outlook for digital art. On the other hand, they have attracted many reflections about critical issues that still need to be fully resolved. Thus far, the consolidated market is not particularly clear, so it is not easy to understand how to become a professional artist or collector of NFT. The crypto art market needs internal regulations to be developed in the meantime as this world continues to grow. But the growth is inordinate and fast enough to raise doubts and questions.

Beeple, who now collaborates regularly with

Christie's, is building zero-emission routes by investing part of his revenue in renewable energy. Artists and marketplaces are the ones who will be able to change the direction and reduce the impact of emissions on Ethereum. One optimal solution is to replace the Proof of Work validation system with Ethereum 2.0's Proof of Stake, in which the systems chosen for the computational effort are chosen randomly and in fewer numbers. This could reduce the CO2 emissions caused by the blockchain by up to 99%.

New projects are being created all the time that start from the bottom, such as Fractional, which allows NFT owners to issue fractional ownership of their works. Fractional allows owners to collect some of the cash associated with their asset without selling the work. It is a decentralized protocol that enables artists and investors to understand the marketability of the product. For example, selling a fractional piece at a price helps you understand how the market values that piece overall.

Fractional works through NFT vault, a sort of

repository, which takes on the role of the custodian of the property and allows it to be fractional, after which the artist can auction, give away, or sell their fractional token. In this way, the ERC721 is transformed into an ERC20, then into a fungible token that can be traded and generate liquidity. Fractional artwork solves the liquidity problem of NFTs. This type of innovation is experimental and encourages the entry of implementations that are essential to ensure that risks are limited and the entire process is facilitated and secure.

SUCCESS STORIES

Morons (White), or Bansky the Provocateur

An incredible case of success for investors was Bansky's entry into the NFT market. The artist known to the world for his provocative verve has been at the center of a real market operation of incredible value. One of his creations, "Morons" (White), was sold by the Taglialatela gallery of New York to the decentralized blockchain company Injective Protocol for $96,000.

With a careful marketing campaign, the company tokenized the work on OpenSea and then burned the physical canvas by posting a live video on the Burnt Bansky Twitter account. In this way, the only original work with all of the same specifications and, therefore, recognized as an authentic Bansky

drawing became the one on the blockchain. Injective Protocol could sell it for four times their original purchase price. This is a truly incredible marketing success that generated a lot public buzz.

WarNymph: Visual Art and Music at the Service of Success

The Canadian singer Grimes, also known for being the companion of Elon Musk, one of the richest men in the world, entered the world of NFT with a project called WarNymph Collection 1, which sold for $5.8 million and is already considered one of the most desired collectibles in the world.

Together with her brother, the artist combined visual concepts with tattooed cherubs and angels along with pieces of her original music and sold all 10 of her NFT works in less than 20 minutes on Nifty Gateway.

Very appropriately, some of the NFT

reproductions featured cherubs and angels protecting Mars, the planet that Elon Musk intends to reach within a few years with SpaceX.

Those who bought these works did so with the prospect of seeing their value increase exponentially. WarNymph is Grimes's virtual avatar and has been used to promote her new album, and WarNymph Collection 1 is part of this fantastic promotional campaign. Thus, as soon as the album drops, those who bought the tokens will find themselves with an even more desirable object. And, if SpaceX reaches its goal, the value can be expected to soar. It is an exciting short- or long-term investment.

Homer Pepe: Art According to Generation Z

To understand the investment value of this work of art that sold for $320,000, you have to start far from the character of Pepe the

Frog, which was created by artist Matt Furie and inspired several memes, including Rare Pepe.

In the wake of these highly successful memes, Joe Looney generated the card Homer Pepe, a collector's item that includes Homer Simpson in the guise of Pepe the Frog. This NFT was purchased for a price of $38,500. However, the seriality of the meme and its recognizability enabled it to acquire a significantly higher value. When the owner, Peter Kell, decided to sell, he did so at almost ten times its original purchase value.

Nyan the Cat: Virality as an Added Value

Also known as Pop Tart Cat, this work of art represents typical modern digital art, and its immediate virality showed the power of the Internet to share and transform different works.

According to creator Chris Torres,

"Originally, its name was Pop Tart Cat, and I will continue to call it so, but the Internet has reached a decision to name it Nyan Cat, and I'm happy with that choice, too."

The value granted by the GIF's recognition and virality enabled the NFT to be sold for a sum equal to half a million dollars.

Bitcoin Angel or a $3 Million Mash-up

Trevor Jones combined his inspiration with the iconic sculpture of Gian Lorenzo Bernini in this NFT, and, in less than 7 minutes, he managed to achieve one of the largest sales in the history of non-fungible tokens.

By selling 4,157 versions of the Bitcoin Angel work at $777 each, the author made $3.2 million.

Collectors who decided to buy a version of the work now own an original that is worth much more than the original sale price if only for the fame it has acquired.

Everydays - The First 5000 Days: The Most Expensive NFT in History

The American artist Beeple, in collaboration with Christie's auction house, generated a total of $69 million for his work. The proceeds made him the third most expensive living artist in the world, increase the value of all his other works, and ensured his place in the Olympus of crypto artists.

The race to buy was tight, with Justin Sun, a digital entrepreneur, narrowly missing out on winning; his $70 million counteroffer, in fact, occurred as the auction was closing.

Beeple shows how the most enterprising collectors and the most famous auction houses are investing heavily in NFTs. Moreover, it reveals how, just a few years after their birth, these works of art have developed into a flourishing and creative market of extreme importance.

Jack Dorsey, Twitter, and Non-

fungible Tokens

Jack Dorsey, the genius and billionaire inventor of Twitter, sold his first tweet for almost $3 million. As a demonstration of the interest of the market for NFTs, a Malaysian entrepreneur, Sina Estavi, CEO of Bridge Oracle, made the purchase and found himself the owner of the first message ever launched on one of the most famous social networks in the world. Some have compared this sale to having purchased a famous autograph.

Jack Dorsey's bet also ends with an even better happy ending, as the entire sum of the sale was donated to charity.

José Delbo, the Masked Superhero

José Delbo, born in 1933, is one of the most renowned comic book artists in the world, owner of some of the most famous drawings, and sought after by collectors of comics. Thus, when he entered the NFT market with crypto artist Trevor Jones, the web went

crazy.

An oil version of one of the inked drawings of the dark knight, Batman, has been tokenized and put up for sale on MakersPlace for $552,603.98. The lucky investor will own not only an extraordinary collectible NFT but also the first official digital DC Comics artwork. This means that he will be the absolute owner of the work that marks the entrance of DC Comics into the world of crypto art, a record that will add even more value to this investment over time.

The New York Times Sells an Article: Art and Literature come Together

The article titled "Buy this Column on Blockchain" was written by journalist Kevin Roose. The article was sold on Foundation for $563,000, but it had been published in paper and on the web just the day before. The buyer became the owner of a piece of history

that will never fade away: the first article ever to be sold as an NFT. In addition, the money was donated to the Neediest Cases Fund.

BEST INNOVATIVE ARTISTS AND THEIR PROJECTS

Beeple https://www.beeple-crap.com/

American Mike Winkelmann is better known as Beeple, a name so famous that it has become practically synonymous with success. His story is one of passion and a long apprenticeship. In 2007, Beeple decided that he wouldn't let a day go by without creating a work of art.

He started by drawing his Uncle Jim. Five thousand days later, the equivalent of over 13 and a half years, he became the creator of the third highest priced work of art sold while alive in the entire history of art, behind only Jeff Koons' Rabbit and Portrait of an Artist (Pool with Two Figures).

Everydays: The First 5000 Days is the name of the work in question. It is a collage of 21,069 x 21,069 pixels containing all the works Beeple created in those first 5000 days. Thus, there is a well-defined story behind the birth of this extraordinary artist who has been able to effectively represent himself and his dedication to his craft.

Blake Kathryn https://twitter.com/blakekathryn

Blake Kathryn is a visual artist from Los Angeles who works with the most important chains in the world from Adidas, Adobe, Fendi, and Facebook to Warner Bros, Columbia Records, and many others. Her artistic conception is so atypical and particular that she has been included among the most interesting and influential artists in the NFT field.

Her Venuses, women queens who rule the winds and seasons, have been sold on Nifty

Gateway for over $1,500 each. The famous entrepreneur and heiress Paris Hilton, in collaboration with Blake, has launched "Planet Paris," her first collection of NFT composed of three pieces already sold out on the Nifty Gateway platform.

Chris Torres

https://twitter.com/prguitarman

If you associate the term meme economy with NFT, you can't help but think of Chris Torres, the creator of the gif "Nyan the Cat," a meme that sold for over $600,000. This crypto artist from Dallas, Texas created the gif in 2011, and it immediately exploded in a proliferation of shares and popularity. "Nyan the Cat" is, in fact, a network phenomenon of global proportions. PRguitarman, Chris’s pseudonym, is the most shining example of a new reality that advances a unique concept of digital art that eradicates old concepts in favor of a fluid, digital, and hyperconnected

world.

Dotpigeon
https://www.dotpigeon.com/

Dotpigeon, a 33-yea-old from Milan, is notorious among crypto artists. When his works were auctioned on Nifty Gateway, they sold out almost instantly and earned him over 1 million euros.

His is an excellent story of victory. He worked for a web-based advertising agency while trying to break through as a digital artist. Now, his art is recognized globally, and he has decided to devote himself exclusively to that.

This artist, who wears a black balaclava as a rebellion against the social masks of bourgeois capitalism, is fascinating because he has been able to combine his skill as an artist with brilliant personal promotion. In fact, he talked about himself on Discord, presented at the Milan Plan X Art Gallery,

and proposed that he be added to the Instagram page Larry's List, which reports the most interesting artists of the moment.

Giovanni Motta https://giovannimotta.it/

The Italian Giovanni Motta also represents the vanguard in the new and avant-garde world of crypto art. Born in Verona, this 50-year-old combines past and future in his works; his favorite protagonist is, Jonny Boy, the representation of his childhood self inserted into the digital world of NFT art.

After devoting a lifetime to perfecting his art, Giovanni Motta is one of the most well-known artists on SuperRare. He is recognized as one of the best-known names in crypto art, and his drawings, which are inspired in part by oriental culture and manga, explore the inner world of adults as they try to retain that fundamental part of their ego linked to childhood.

Hackatao

https://podmork.com/blogmork/

Starting from solid experience with neo-pop and pop surrealism in the Italian market of tangible art, they were the first to tokenize art on SuperRare. The artistic minds behind the project are Sergio Scalet and Nadia Squarci. The real pioneers of crypto art in Italy and around the world, they are part of the beating heart of the digital exchange. They started by proposing an engaging and stimulating experience for traditional collectors and directing them toward the crypto art market. Compared to conventional media, with crypto art, they have experimented with a faster means of expression. Hackatao denounces the contemporary world's contradictions, and their art has an optimistic outlook that is wide open to the digital future in which they claim the right to express themselves without censorship or false idols.

Josh Pierce

https://www.joshpierce.net/

Josh Pierce is a digital artist famous for his 3D NFTs. With over 100,000 followers on Instagram, he has become a protagonist on the world scene since his first appearance on Nifty Gateway. He defines himself as a visual artist and a motion graphics art director, and he focuses on themes that combine surrealism and naturalism, trying to create awe and spiritual calm by expressing the presence of spirituality in every present moment. His skill is the result of a long apprenticeship. In addition to being an NFT artist, he has also collaborated with the NFLLeague of American Football, Adobe, and multiple Grammy-winning artists.

Kevin Abosh

https://www.kevinabosch.com/

The visionary Irish artist Kevin Abosh is linked to the IAMA Coins project and is one

of the most inspiring and controversial digital artists. His turning point toward crypto art happened in 2016, when he sold a work of art that represented a potato for 1 million euros and was overwhelmed by the feeling that he had commodified himself. As a result, he decided to rebel against this by literally selling himself.

The IAMA Coins project binds 10,000,000 NFT works connected to 100 physical works by alphanumeric codes. The peculiarity of the whole thing is that these real works were made from his own blood. He literally tokenized and sold himself.

Incredibly active and always attentive to the current moment, he has created collaborations with other artists, inspired industry hashtags, and much more.

Pak https://twitter.com/muratpak

An example of personal storytelling, Pak is one of the most famous and well-known

digital artists globally, earning the nickname of omniscient designer/developer/magician despite maintaining complete anonymity. Indeed, no one even knows if Pak is a single artist or a collective. Pak’s identity is shrouded in mystery. What is known is that Pak is the founder and lead designer of the Undream studio and the creator of Archillect, an artificial intelligence built to discover and share stimulating visual content on different social media. Archillect is a real digital revolution because it is configured as a digital curator that, thanks to specific keywords, can search for images with minimal and aesthetically cold tones, in complete autonomy, without requiring external human mediation.

The auction house Sotheby's has chosen to collaborate with Pak for its entry into the digital world.

Pak is certainly not a newcomer, having been present in the digital art world for over 20

years, and is a compelling demonstration of how one must learn not only to tell their story in an original way but also be patient about developing their craft for the right amount of time before garnering attention. Pak’s admirers include Elon Musk, the CEO of Tesla and SpaceX.

Trevor Jones

https://www.trevorjonesart.com/nfts.l

Trevor Jones is a Scottish artist who can claim a prominent place among digital artists who have linked their works to the blockchain. He creates digital drawings inspired by the great works of past artists and then animates them. His Picasso's Bull sold for $55,555.55, the largest Nifty Gateway sale since the platform’s inception.

The artist is so famous that DC Comics chose him to work together with comic artist José Delbo and lead the publishing house’s entrance into the world of NFTs with crypto

art dedicated to Batman.

Xcopy

https://xcopyart.com/portfolio/tagged/

Digital artist and cryptocurrency enthusiast based in London, Xcopy’s distinctive and fascinating collections can be found on SuperRare and on Nifty Gateway. He maintains close ties with the entire community interested in NFTs, often delivering positivity and personal growth messages. Xcopy has become a true mentor to many.

His digital art investigates dystopia, death, and apathy through distorted images reproduced in a loop and has achieved extraordinary success.

NFT and FASHION

INTRODUCTION

Among all the sectors that are involved in the NFT revolution, fashion design is the one that is enjoying an interesting expansion and great success. Partly because, for example, there are about 3.4 billion players worldwide, 27% of whom are between 21 and 30 years old, and every player likes to make their avatars wear high fashion items, to stand out by creating a unique and stylish identity.

In the space of a few years, digital fashion has also made its way into the gaming world just as the lives of all of us, some by force some by pleasure, in general have become increasingly digitized. As the industry adapted to virtual fashion influencers and virtual fashion shows, accelerated by the pandemic, the advent of NFTs was a new thing to grasp.

The desire of those in the fashion industry is

for blockchain technology to become pivotal in creating a circular fashion economy, due to its ability to track ownership, supply chain and bring customers closer together with upcycling programs. When ownership is tracked, this allows brands to know who owns the product and therefore be able to redirect the customer to make new choices. The success of NFTs will go hand in hand with that of mobile technology, evolving and creating new ways of use, habits and what not.

In a few years, the function of mobile devices will also have changed, and fashion creators will create exponential value by, for example, tying NFTs to a physical object. Fashion NFTs represent a potential and incredible disruptive medium.

Benoit Pagotto, co-founder and CEO of virtual collectible sneakers RTFKT, launched the brand with the idea that a new generation of customers will buy NFT because their digital characters are just as important as their

physical ones and not just for playing video games. In total there are 621 pairs of NFT sneakers available created with artist Fewocious and they made $3.1 million in sales in minutes in March and recently raised $8 million to power the future of digital fashion. Benoit Pagotto urges us all to think of NFTs not just as a mere digital object, but as an entirely new medium capable of creating new avenues and opportunities. Maybe the NFTs created today will unlock new uses in the future, innovative and yet unforeseen uses.

NFTs will profoundly change the world of luxury fashion and beyond. Scarcity, as presented by non-fungible tokens, is at the heart of both the luxury market and is intrinsic to NFTs. Just as in the fashion and art worlds, NFTs primarily produce collectible items and/or profitable investments. NFTs now bring a new level of exclusivity and also an opportunity to transform design and digital collections into

extremely rare, valuable, valuable, luxurious and unique collectibles. While the personal expression of luxury store customers was once only physical, it is now merging with the virtual at an accelerating pace.

The idea of spending real money on a digital asset just a short time ago seemed unthinkable, today, thanks to millennials and generation z and alpha, the luxury market is definitely changing. These customers are not buying expensive shoes because they have an imminent need for them, rather because they want to be part of the luxury culture, to feel part of something, of the heritage and unique history of the individual brand. The future of NFTs will most likely be connected to augmented virtual reality.

The concept of ownership is also making strides precisely because of NFTs. In the past, transactions depended on intermediaries, while now blockchain transactions are reliable and automated. Digital platforms are springing up every day, investments are

increasing, transactions are multiplying, and artistic authentication is landing on a new secure and cutting-edge level. NFTs will also impact advertising and digital storytelling. Consumers are increasingly interested in the stories, values and traits of the brands they routinely buy and decide to wear or have their avatars wear. NFTs are great tools that bring democratization, decentralization and demystification to works of art and design. This creates a new way of sales engagement and digital customer interaction whereby memorable items potentially increase loyalty. Ephemeral items fade away, but a collectible is a much more intense, valuable and lasting connection to a specific brand.

The earliest experiments with regard to NFTs were those that linked tokens to physical objects in order to track the lifecycle of a product. In a post-pandemic landscape where flying to the other side of the world to attend a fashion show has become unsustainable, priorities have changed, leading brands to

think more digitally than in the past. Fashion is also moving towards a very trendy new horizon of an environmentally conscious industry and more sustainable production. A very similar scenario to the entire art world. Digital native companies are still exploring the terrain, among the most famous being The Fabricant, which deals exclusively with digital garments. Paris Fashion Week has also opened up to the world of Non Fungible Tokens, as has Louis Vuitton.

Online fashion isn't replacing physical purchases and never will be able to, in fact, in many cases, virtual shopping could limit the wastefulness of consumers buying clothes to wear on social media: according to a 2018 study by Barclaycard, 9% of UK shoppers have bought clothes for social media photos and then returned them.

NFTs, moreover, can have the function of certificates and could have an impact on the resell world, for example by providing brands with a royalty percentage every time a

product is purchased on the luxury market or by keeping an accurate map of the changes of ownership of a certain object. This is made possible directly by Blockchain technology and smart contracts that manage movements automatically.

NFTs can be used to represent the ownership of any unique asset in the digital or physical realm: the application of NFTs to the physical world is certainly compelling. Indeed, through the code behind NFTs, brands can track and share with consumers the durability of a product. Such NFT provenance tracking technology could prove to be a key tool in the broader authentication process.

NFT & FASHION: THAT'S AMAZING NEWS!

GUCCI ARIA

Christie's Proof of Sovereignty online auction ended on June 3, and among the works sold in the form of NFT was the video presenting the Gucci Aria fall/winter 2021 collection. The fashion film, four minutes in total, was created by filmmaker Floria Sigismondi along with the brand's creative director Alessandro Michele. This isn't the first time Gucci has experimented with NFTs and this presentation video went for $25,000 and the entire Christie's auction, which consisted of 20 artworks, ended for a total of $995,000. All proceeds from the sale of Gucci Aria were donated to Unicef USA in support of the organization's role in ensuring equitable access to COVID-19 vaccines for all globally.

UP FOR GRABS IS THE NFT OF THE JAWARA ALLEYNE DRESS WORN BY RIHANNA

The strange dress worn by Rihanna on the 30th birthday cover of Dazed has not gone unnoticed. Today, Jamaican designer Jawara Alleyne has put NFTs of the iconic dress up for grabs. He has partnered with fashion technology platform Brand New Vision (BNV) to give away 10 limited edition versions of the non-fungible tokens. His aim, he said, is to democratize NFTs because the dress will also be available for free for resale. The designer also shared his experience in making a garment for a digital platform, a different situation from making a dress in reality, but still something exciting, original and innovative. In this way, by using some tokens that are free or to be put up for grabs, we encourage other designers to experiment and engage and activate the fashion community further. In fact, according to the designer, "Fashion has always been an industry at the forefront of conversations about innovation, enabling new ways of

thinking about consumption."

HAVAIANAS: THE DEBUT OF BEACH FASHION IN NFT

Havaianas is a Brazilian beachwear brand, the flip-flops patented in 1962, for years have had a prominent place in beachwear and collaborations with important international artists and influencers.

The Alpargatas-owned brand debuted in May 2021 in the NFT world through a partnership with:

- Adhemas Batista. The crypto artist who signed the Ncapsule called Felicidade.
- Foundation.App. Clothia's marketplace selling NFT.

The collection auctioned off contained five sets of Havaianas:

- Happy Feet.
- A Step to Happiness.
- Happy Citizen.
- Happy Spring.
- Happy Heels

The auction lasted 24 hours, generating considerable success for all involved. In this case, it was also able to help bring art to the less well-off parts of Brazil, since all proceeds were donated to the Favela Galeria foundation, which runs an open-air gallery in São Paulo.

CARLINGS, THE SCANDINAVIAN BRAND SELLS 3D WORKS

Carlings has been nothing short of a pioneer when it comes to NFTs: in fact, the Scandinavian brand has been selling 3D renderings of its clothes since 2018. It put a collection of 19 pieces in total on sale for just $13, even though it was a brand with 200

stores across Scandinavia and selling the clothes made well over that amount. Carlings is therefore known as the first store to put on sale digitized versions of clothes but that's not all, once you bought the garment you could send a photo of yourself and let a team of 3D designers edit the digital clothing customizing it based on the image received. Certainly the CEO of Carlings, Ronny Mikalsen, is one of the pioneers of this sector and was able to anticipate and experiment something original and innovative. While ingenious, this business choice didn't prove entirely cost-effective at the time, in part because digital resources were replicable. Today, NFTs nullify the problems of copying and can be encoded in the blockchain and each brand can claim royalties with each resale.

NAMELESS AND NFT FOR EVERYONE

Nameless is a really interesting project that will start in early 2022, created by Jim Mcnelis' company NFT42, a digital pioneer who also founded Dito and with NFT42 also AvaStars.

This is a bold project that aims to bring NFT technology within everyone's reach, to democratize the decentralized blockchain even more, what was missing for now was something that would allow anyone to arrange their own Non-Fungible-Token output.

Nameless will work in a way very similar to the systems that allow you to develop no-code apps, that is, it will allow users to develop and customize their own drops, their own blockchain and their own smart contracts without having to go crazy behind detailed programming, more within the reach of experts.

In detail, this project is proposed as a valuable intermediary to quickly dispose of all NFT protocols:

- By choosing from a variety of smart contract options and customizing existing ones, you can create a fast and secure contract.
- Thanks to the ready-to-use SDK you will be able to prepare a smooth and error-free code.
- You will be able to choose the most interesting blockchain for your token.

Furthermore, Nameless will allow you to upload any type of digital file to be transformed into NFT, whether it be a 3D project, multimedia, simply visual or audio; it will also be possible to link multiple objects or files to your NFT.

When the project will become reality for all the NFT artists will open a new road easily

passable for the transformation of their art in NFT and the first ones to benefit will probably be the fashion visual artists who, in fact, have already invested in several rounds on the project of NFT42.

VANITY FAIR: THE IMPORTANT FASHION MAGAZINE BECOMES NFT

For years Vanity Fair has been a point of reference in fashion, providing news, in-depth analysis and bringing to the public all the most interesting content and innovations of the great fashion brands. Born in America in 1983, this magazine has opened editorial offices all over the world and the Italian one has become the protagonist of an unprecedented initiative, creating for the first time a magazine with a cover, also, in NFT.

On September 22, 2021, the magazine did, in fact, debut on newsstands with its first NFT

fashion cover featuring Italian singer Elodie. The singer's photo and cover were completely reworked by star-up Valuart to become a unique NFT.

It was an international revolution also for fashion publishing, which saw an interesting success since even before being revealed to the public, the cover had already been sold for 25,000 dollars.

The entire sum was then donated to the Pangea association which assists Afghan women refugees in Italy.

YAMAMOTO: WORLD-FAMOUS JAPANESE DESIGNER DEBUTS IN NFT

Yohji Yamamoto is a Japanese fashion designer and stylist who has created iconic clothing not only in his own country, but

around the world. He has collaborated with Supreme, Adidas and was one of the pioneers of avant-garde fashion.

Yamamoto debuted in the NFTs in style in July 2021:

- One of his coats from the 1980s was auctioned off on OpenSEA for over $12,000. The transaction was carried out by Patreots retailer of Japanese Vintage haute couture in the U.S. Those who won the garment on NFT had the pleasure of also receiving the physical item at home.
- A t-shirt created in collaboration with Supreme, still unreleased, but stemming from the 2000 collection has gone on sale as an NFT. The operation was carried out by Supreme itself and is the fashion house's first NFT operation.

ICECAP: JEWELLERY AND

DIAMONDS FOR COLLECTORS

Icecap is the first platform created specifically to offer investment diamonds through NFT technology. Diamonds, unlike gold or silver, are an asset that risks losing up to 50% of its value once purchased, it is called liquid asset class. After having shaken the world of the art and the fashion, the NFT invades that one of the diamonds solving exactly a great problem. The solution was found by Jacques Voorhees and his son Erik, who introduced the possibility to exchange, sell and buy diamonds as efficiently as gold and silver. After all, the interest in diamonds is thousands of years old: Icecap uses blockchain technology to represent the properties of individual diamonds. This allows you to retain the value of your investment and as a result you can liquidate that value at any time with the click of a button. These tokens can be traded on

Opensea, liquidated or redeemed, taking delivery of the diamond itself which can later be re-tokenized. Trading diamonds is a good idea that allows you to diversify your virtual portfolio. The platform makes diamond trading very simple and straightforward, without the need for intermediaries. The diamond is stored in a secure vault and can be redeemed at any time without creating friction between investors and collectors. Other jewellery houses have also chimed in, such as Asprey's executive producer John Rigas who said he thinks NFTs help strengthen the authenticity of products by "capturing" their information within the blockchain. On the contrary from Cartier they remain cautious for now because they do not intend to subject customers to certain price fluctuations.

AUROBOROS IN ITS NEW READY-TO-WEAR COLLECTION

Presented during London Fashion Week in June, the new digital ready-to-wear collection by Auroboros is inspired by nature and technology, in the indissoluble encounter that is created through innovation. The collection is purely digital and was presented through a film projected during the event. Designed by the fashion house's first designer, Sita Abellan, the collection includes a total of 14 looks of the Venus Trap dress, available to consumers via Snapchat by scanning the Qr code in the billboards of the evening event and then available for purchase on the DressX platform or on the website of the fashion house founded by Paula Sello and Alissa Aulbekova.

Digital fashion, we may not have realised, has been around for some time, from video games to CGI costumes in Hollywood movies, people will be able to easily adapt to virtual clothing. The change is so imminent

that the collection was presented at London Fashion Week. Auroboros with ready-to-wear allows access to any size, gender or body indiscriminately. The cost of raw materials? Zero, and a carbon footprint 97% lower than the production of a real garment: in this way we can say goodbye to fast fashion and the problems it generates. Digitally then, each of us can freely express our identity and freedom. There are no constraints or rules, there is no force of gravity. Designers can protect the planet and advance undaunted towards pure avant-garde and constant renewal.

ELLEN VON UNWERTH, FASHION PHOTOGRAPHER TRANSFORMS NAOMI CAMPBELL AND KATE MOSS INTO NFTS

A new collection under the aegis of Ellen von Unwerth called Supermodel Seriesc was

released on October 21, 2021 and featured fashion icons Claudia Schiffer, Naomi Campbell and Kate Moss in an auction collection on the Cryptograph platform. The iconic supermodels were then subjected to a tokenization process where a portion of the proceeds were donated to non-profit organizations such as Unicef, Fashion For Relief and Imperial Health Charity. The iconic shots depict the models in historical garments: a bespectacled Kate Moss in a chair, a Naomi Campbell in a fashionable version of Mickey Mouse ears and a beautiful Claudia Schiffer emerging from the water in a one-piece swimsuit and sexy cowboy hat. Fashion in this case was expressed through beautiful super models who have marked the history of fashion houses and who are still chosen by designers as iconic beauty models and stimulus for creativity. The German photographer has immortalized the biggest international fashion brands and intends to

pay homage to her top models for a philanthropic and special purpose.

EXCLUSIBLE: SOON A PLATFORM DEDICATED EXCLUSIVELY TO LUXURY NFTS

Exclusible is a marketplace that will soon see the light of day and in the month of September 2021 has raised over $2.2 million in investment. Exclusible will be a platform dedicated exclusively to NFTs from the luxury sector such as:

- Fashion.
- Supercar.
- Watches.
- Jewelry.

Conceived and desired by its founder Thibault Launay, himself a collector of NFT Exclusible, it is a privileged interpreter of

luxury collecting.

KARL LAGERFELD: LAUNCHES HIS FASHION NFTS

The Karl Lagerfeld brand on September 10, 2021 landed in the world of collection NFTs finding its own interesting intersection with fashion and collecting.

In fact, it has created a series of collectible figurines featuring its long-time, now-deceased founder, Karl Lagerfeld. Launched on The Dematerialized the NFTs offered for sale have:

- limited edition.
- two different versions. The first of 777 copies put on sale at a price of 77 euros, the second of 77 copies at a cost of 177 euros.

Fashionistas will know that 7 was considered by Karl Lagerfeld to be his lucky number, which is why it recurs so many times in this

fashion collection.
The success of this project has been really wide, since the most expensive and exclusive version of the token has been sold out in just 33 seconds, while the 777 copies took less than 50 minutes to finish.
The collection put on sale by the brand helps to show that the world of fashion and NFT can connect in many original and different ways, each one particular and exclusive.

GUCCI GARDEN EXPERIENCE

Fashion is an industry that is monitoring the NFT industry, its evolution and potential, before going the token route in full force and yet Gucci's official spokesperson, interviewed by Vogue Business magazine, stated that the company is preparing an NFT Fashion launch really in style. To prove it was the entry on the game Roblox, a completely virtual MMO that in agreement with the Italian fashion house opened the Gucci Garden Experience

on May 17, 2021 that is a digital garden where the fashion house to celebrate its 100th anniversary put on sale collectibles. All the fans and curious people who took part in the exhibition were able through their avatars (their characters in the metaverse) to try Gucci items. The real star of the scene was the digital version of the Dionysus Bag sold at auction for $4,115, more than the amount expected to buy the real product.

IRIDESCENCE: THE FIRST FULLY DIGITAL NFT HIGH FASHION GARMENT

Iridescence when it appeared on the scene, disrupted the fashion paradigm and did so with immediate effect. This garment, made by fashion house The Fabricant is the first high fashion garment to be created entirely in 3D digital and sold as NFT. If until now fashion houses had limited themselves to

selling and creating NFT representing digital copies of their physical models, or linked to physical objects, now, with Iridescence the paradigm of digital fashion has changed forever. It opens an alternative path in the fashion world and all this could have a huge impact on digital creativity in NFT.
The dress sold for $9,500, marking the success of the project.
Fashion is changing, evolving and interpenetrating with the new digital environments, becoming more imaginative, disruptive and precious day by day: Iridescence confirms its importance and will be the forerunner for many other similar and even more innovative projects.

DOLCE & GABBANA CONQUER THE NFT MARKET

Dolce and Gabbana, iconic fashion brands in Italy and around the world, have conquered

the NFT market in a way that has probably never been done before by haute couture. Showing great audacity and that the NFT world is ready more than ever for fashion, Domenico Dolce and Stefano Gabbana launched the Genesi collection at the same time as the brand's participation in the Venice shows. Genesi is the first luxury NFT collection of both digital and physical works and showcases handcrafted, museum-quality products through Dolce&Gabbana haute couture, fine jewelry and tailoring. In designing the entire collection, the celebrated designers shared that they were inspired by the limitless creative possibilities afforded by Nft, which allows them to further expand their creativity. The project came about through a collaboration with luxury marketplace Unxd and sold for $6 million. In reality, at the close of the auction, the takings would have been 5.7 million dollars, but after the announcement of the success of what is

the most extensive and articulated fashion collection ever created so far, the Ethereum coin rose 10% and, since the amount due to the high fashion house was to be given with the precise value of the moment of collection, it received 6.1 million dollars. The two pieces in the collection that have boosted the takings are:

- The Doge Crown.
- The Glass Suit.

The Glass Suit in particular attracted a lot of attention as the NFT sale also included the physical model of the suit, which was custom made for the winning auction buyer.

THE COMBINATION OF VIDEOGAMES AND NFT FASHION

Within the game platforms users are used to make microtransactions to own collectibles or

upgrades of their characters and that's exactly why the first approaches to the digital world of international high fashion houses are within these ecosystems. Not just trials, of course, but successful experiments such as:

- The one by Louis Vuitton who collaborated with the video game League of Legends.
- Burberry who made exclusive skins for Honor of Kings and Mythical Games.
- Prada in collaboration with Louis Vuitton who dressed the characters of Final Fantasy XIII

At the moment, it seems that the Chinese world is the one most focused on the marriage of fashion and video games, but high fashion houses are preparing various stylish entries into the NFT world. Cathy Hackl of Futures Intelligence Group said, in fact, "the sale of virtual clothes and assets will be a significant revenue stream for

brands. For my kids, how their avatar looks in games is as important as how they look when they go to school."

FARFETCH AND THE SALE OF NFT FASHION WHOLESALE

Farfetch is a wholesale high fashion e-commerce, used by users all over the world and widely known. The peculiarity of this e-commerce is the possibility to buy, together with real garments, also garments belonging to NFT digital collections.

In fact, Farfetch has partnered with fashionable NFT for sale with:

- Balenciaga.
- Gucci.
- Dolce and Gabbana.
- DRESSX

And many other international luxury brands, proving that today NFT fashion can be perfectly penetrated into traditional markets.

JIMMY CHOO ANNOUNCES AN NFT COLLECTION

It certainly couldn't miss on the list of the world's biggest fashion brands Jimmy Choo who, in collaboration with artist Eric Haze and designer Poggy has put a collection of NFT on sale on Binance NFT. Haze's work is a digital sneaker that rotates, where you can see his signature in red. Along with the sneakers, as many as 8,888 mystery boxes were auctioned off and the lucky winner of the auction also received hand-painted sneakers. The mystery boxes are distributed as follows:

- a single Jimmy Choo/Eric Haze LOVE 1000 Glitter,
- 445 super rare cards
- 3,109 rare cards
- 5,333 neutral cards

All priced at $30 USD on Binance for a total of $13,672. Proceeds from the auction will be

donated to the Jimmy Choo Foundation in support of Women for Women International. The non-profit organization is dedicated to helping women survivors of war. Jimmy Choo chose an artist like Haze who has an iconic 80s style and mixes streetwear and traditional clothing. In addition to the already disruptive way Jimmy Choo presents himself, he comes to the Nft with a different style from the one he is famous for, which is the classic heeled shoe. In this case, the goal was to leave creativity free to the artists and give the public something absolutely new. Jimmy Choo's launch into the digital art form is yet another affirmation that NFT is establishing itself as an important part of contemporary fashion, as the luxury house joins other big names in legitimizing it and uncovering its incredible potential.

MANISH MALHOTRA DEBUTS WITH INDIA'S FIRST NFT

Indian designer Manish Malhotra has entered the world of cryptocurrency with a first ever collection. The Bollywood designer launched 5 exclusive pieces that contained the sketches and animated images of five couture pieces worn by famous actresses and models Lisa Ray, Deepika Padukone, Kareena Kapoor Khan and Alia Bhatt. The auction of the designs of these fabulous dresses was opened on Binance: the one that sold for the highest price, a whopping 3,000 WRX which, as of today, amounts to $3,753, was "Illuminous Showstopper" worn by Kareena. The sale took place in just 12 seconds and the general sales lasted just two minutes. The designer wanted to seize the opportunity of NFTs by demonstrating the amazing reach for emerging Indian industry creators and that they can find a creative space where they can express their art. However, Manish Malhotra takes the position of being the first Indian fashion designer to have coined a work in

NFT.

ANREALAGE BY KUNIHIKO MORINAGA: BETWEEN REAL AND UNREAL

The Japanese school has a lot to teach, particularly in terms of the desire to establish itself from a conceptual point of view. Anrealage is the brand and Kunihiko Morinaga the name of the artist who wants to bring the virtual into reality. He did it with his "pixelated" collections and now with a new 3D construction to be sold in the form of NFT. Analogical research and conceptual ingenuity are the cornerstones of the work of Kunihiko Morinaga, who was one of the finalists for the 2019 LVMH Prize. His collection for Paris Fashion Week 2022, involved a 3D dress that could be worn in real life. It was titled "Dimension at U" and was a fascinating kaleidoscope of colors and

shapes. The idea is that the dress can be worn by an avatar so the collection will be sold as NFT on a platform that allows bidders to watch the presentation of the dress in the avatar and bid for cash. Morinaga plans to ride the generational shift and cross the thresholds between real and digital.

CRYPTO FASHION WEEK: THE FIRST NFT FASHION WEEK

Crypto fashion week was a remarkable success. An entire week dedicated to digital fashion held from 10 to 17 September 2021. Just like the traditional fashion week this big event connected and showcased:

- Designers and stylists.
- Artists.
- Models and avatars.
- Blockchain Engineers

And so many more digital fashion performers in NFT. Within this week, Karl Lagerfeld's

Non-Fungible-Token collection was released. Throughout the week NFT events were held with live drops, shows and interviews. Finishing off the world's first Crypto Fashion Week was the Meta Gala, a metaverse representation of the Met Gala, the hottest celebrity fashion show of recent years. To get in, you had to buy a ticket and go inside a metaverse specially built for the event.

Avatars of stylists and models dressed in the most daring bespoke NFT designs appeared on this evening and investors were able to watch presentations from The Fabricant and other leading digital fashion brands.

This project again shows how NFT and fashion are inextricably linked and how they are rapidly spreading, opening up endless possibilities for those who can grasp them. Fashion shows and gatherings are now not just the preserve of the real world, but are moving vigorously into the digital realm and perhaps, in the not too distant future, CFW

will be the most important international fashion event to watch and attend. The creators are so certain of this that they say they are already hard at work preparing for the 2022 event.

NFT & FASHION: DISRUPTIVE PROJECTS

LOUIS THE GAME

The high fashion house Louis Vuitton within the celebrations for the 200th birthday of the founder, has released a game for smartphones called Louis the Game. The peculiarity that makes the news interesting is not this actually. In this video game players will have to overcome levels, accomplish important missions by collecting candles to celebrate a birthday and while doing so they will be able to unearth NFTs enclosed in the game. There are 30 Non-Fungible Tokens to collect, 10 of which were created in collaboration with Beeple. The NFTs hidden in the game are collectible, but cannot be sold or transferred to other players.
An alternative and extravagant way to create unique NFTs for Louis Vuitton fashion lovers.

TRIBUTE BRAND FOR DEMATERIALISED

Tribute Brand has partnered with Dematerialised to launch the sale of its first

NFT fashion collection. The drop called "The Real Deal" featured 6 Non-Fungible-Tokens or rather the project includes: 2 garments that can undergo 3 different digital metamorphoses.

Each digital transformation of the original garment will present the specific buyer with true utility within the real world. The transformations, also called phases, are:

- Past. This is the first stage, by purchasing the original NFT you will simply have a descriptive audio file and the owner will not be able to see the fashion item until it is delivered into their hands.
- Present. At this stage the Non-Fungible-Token is displayed in digital form and is available to be worn on the TB Premium Fitting Service photos.
- Future. In this phase the NFT will be transported and drawn thanks to the present phase directly on the functional aspects of its own silhouette and

garment. In this phase the NFT will be wearable by the owner in real time thanks to Augmented Reality. It will then be possible to wear the garment everywhere as a skin through the app: YCY Tribute Brand.

A project this one that includes fashion house Tribute Brand and marketplace The Dematerialised wants to take the conceptualisation of fashion to a level never tried before.

KRIGLER: A PERFUME FOR RENT

When talking about high fashion, perfumes and fragrances cannot be missing. This world has always been connected to luxury and the most intrepid fashion. This is well known by Krigler, a luxury perfume brand, which has opened up to NFT.
Their project is not only ambitious, but very exclusive, capable therefore of generating

extreme interest both in collectors and in those who make fashion a real cult.

Krigler will put up for sale a limited series of NFTs that will correspond to the representation of the fragrance. Together with the NFT, the collector will have a certificate that talks about the inspiration and the creation of that specific fragrance and above all he will get an exclusive license on that fragrance for 6 months or one year. Practically together with the NFT the exclusive use of a specific fragrance will be sold almost as if there was a sort of rent behind it. Once the months have passed, the NFT will not lose its uniqueness and the fragrance will return to being the prerogative of the world market.

The known prices are:

- 5 Ethereum, at current exchange rates $19,038.23. For the 6-month license.
- 10 Ethereum, at the current exchange rate 38,047.7. For the 12-month license.

In this way, according to perfume house owner Ben Kriegler, perfume collecting will go from collecting antique or used perfume bottles, to holding an NFT with the history and original idea behind a fragrance.

SF24 TOURBILLION: A $100,000 WATCH

Jacob & Co. with its luxury watches is a must among high fashion streetwear accessories, so much so that its products can cost up to 1 million dollars and are always produced in limited series. To wear its products have been stars such as Kanye West, rapper of world renown, and has collaborated on the creation of unique pieces even the great Japanese artist Takashi Murakami. Well Jacob & Co. made its debut in NFT Fashion on Nifty Gateway on May 22, 2021 with a one-of-a-kind digital watch that in a 24-hour auction broke the record price of $100,000, the starting price of the auction base was $1,000. The reproduction of a unique and collectible

watch was created specifically for the NFT world and does not refer to any of Jacob's products while maintaining the style and with short 10-second animations shows some types of cryptocurrency.

RTFK & FEWOCIOUS: A LUXURY COLLABORATION SOLD IN A FLASH

Fewocious began experimenting with his art as early as 13 years old in his hometown of Las Vegas. He sold his first painting at the age of 17. Today in 2021, he is one of the most well-known and followed crypto artists in the world. His collaboration with the fashion house RTFK in 2021 has already made history: in 7 minutes his NFTs were sold for the mind-boggling amount of over $3 million.

Followed by all the most interesting fashion investors and collectors, Fewocious has

created a digital collection of sneakers with RTFK, 600 pairs that immediately sold out. Collectors, in this case, also got a physical copy of their NFT number to wear in everyday life as well.

A real success for the young transgender artist who managed to establish himself even more in the international scene.

AURA, THE BLOCKCHAIN PLAYBOOK OF LVMH

The Aura Blockchain consortium was born at the behest of brands like LVMH, Prada and many others. The idea came about following a gathering of executives at Louis Vuitton's historic family home in the Paris suburb of Asnières-sur-Seine. The platform was created with the intention of verifying the authenticity and provenance of luxury goods. The playbook is non-profit and open to any luxury brand that wants to join by paying a license fee and a fee for each product. The

goal of the playbook is to track and trace any luxury goods found on the blockchain. Major luxury players are thus collectively participating to give a boost to the transformation of the NFT market. Aura is a private platform, which only participating fashion houses have access to, and marks a decisive moment in the development of the luxury digital economy. Over time, useful features will be added. From here on, brands have started experimenting because the pieces are in a sense guaranteed to be on the Aura platform. Aura is an open place, but those who are part of it can decide what to show and what not to show to customers. The thing that matters most to a luxury brand is longevity, more than any other, and united luxury brands can generate standards and control data processes without intermediaries. By now, several luxury items have had a digital passport on blockchain to protect them.

OVERPRICED: LUXURY STREETWEAR IN NFT AND THE WORLD'S MOST EXPENSIVE SWEATSHIRT

Today, streetwear is the new frontier of luxury and fashion, unhinging the paradigms of informal luxury clothing is becoming increasingly popular in every living room. Following this path and with intentions halfway between provocative and enlightened entrepreneurship, the Overpriced fashion house was born, aimed at young artists and young streetwear lovers. Overpriced's audience is therefore a young audience, who know about cryptocurrencies and dress fashionably and are willing to pay for an NFT knowing its fashion value. This fashion house was founded by: Leighton James founder of Adventure Club and James Zwadlo and Chris Levett co-founders of Impossible Brief.

The project started with the first drop of NFT Fashion: the black Hoodies were auctioned

on Blockparty in mid-April 2021. The collection of 25 hoodies, of which only 10 were put on sale, was immediately sold out. The starting price was 25,000 dollars and did not discourage collectors who made the Hoodie by Overpriced one of the most expensive streetwear items in the world: the sweatshirts were sold for $ 26,000 generating a truly remarkable revenue for a debut. Overpriced, knowing the techniques of effective communication and the world of young people, has distributed more sweatshirts to influencers around the world. The peculiarity of the NFT is that it is connected to a real sweatshirt that is shipped to the buyer's home: the sweatshirt will have an embedded V code that will allow the wearer to wear it in all digital and augmented reality environments. Should the garment be:

- Lost.
- Ruined.
- Stolen.

the V code linked to the NFT will be

invalidated and a new sweatshirt sent immediately to the buyer, in this way youth luxury fashion enters the NFT industry with high style.

ARIANEE: THE FUTURE OF FASHION AT YOUR FINGERTIPS

Technology touches every aspect of daily life and the fashion industry is disposing to this trend. Arianee is an open source solution that paves the way for those customers who prefer the digital experience. According to Frederic Montagnon, president of Arianee, this is the first time in history that "we have the ability to create something in a limited number" in the digital world and that's why we should start taking advantage of it. The Arianee platform allows, through the scanning of a QR code, to unlock all the properties of the digital resource, leveraging new experiences and opportunities. The platform focuses specifically on the user experience after the sale and resale and not on supply chain

information. CEO and co-founder Pierre Nicolas Hurstel said Arianee's protocol is fully transparent and the infrastructure is decentralized. Digital IDs are very important in the luxury industry, Arianee works with brands such as Richemont, Breitling, ba&sh and many others, and its motto is: from the street to the metaverse, creating a connected fashion system capable of generating a new level of interaction with end customers.

ADIDAS AND KARLIE KLOSS

Representing fashion's ever-growing interest in NFTs, especially sneakers that are a symbol of streetwear fashion and no longer just comfort, is the project brought forward by The Fabricant, a fully digital NFT fashion house and sports fashion brand Adidas in collaboration with Kode with Klossy in which supermodel Katy Kloss has participated with her non-profit foundation. The jacket created is an orange Wind Parka of which creators can make several digital

versions that will then be offered for sale on the KnowOrigin platform.

The project consists of a real fashion competition through 3D design. The top 20 designs voted by experienced professionals were then put up for sale as NFT and also showcased on Decentraland. Here one of the artists had a bid for his luxury garment in NFT $2,400. The Fabricant has previously collaborated with sportswear brands such as Puma and Tommy Hilfiger with Iridescence.

MARKETPLACE

RFKT

RFKT is a luxury brand and marketplace that creates high-fashion NFT sneakers perfect for adorning the digital avatars of collectors around the world, and describes itself as a fashion house that integrates video game styles and features.

Born in January 2020, in London, England from the idea of:

- Chris Le. Artist and creator of graphics for Sony and Def Jam, Netflix film director and editor.
- Benoit Pagotto.
- Steven Vasilev.

This fashion house and marketplace first focused on creating highly innovative and fashionable sneakers to create digital, real-world shoes that are part of integrated

collectibles. Their growth has been truly exponential. They achieved sales of $600,000 in 2020, $4.5 million in the first six months of 2021 and then partnered with Fewocious taking sneaker sales to a new level so much so that they earned of 600 pairs of shoes $3.1 million in just 7 minutes.

After making this record sale RFKT had $8 million in funding in May 2021 with an investment round led by Dapper Labs CEO, Galaxy Digital and Andreessen Horowitz.

THE DEMATERIALISED

In this marketplace you can find both needs: the digital one, dematerialized, together with the experiential one, but without being a real game. The marketplace was founded in 2020 by Karinna Nobbs with Marjorie Hernandez, who works in digital fashion. It uses the blockchain technology lukso and aims to enhance new creative projects inherent to digital and spread the culture of environmental sustainability by promoting the choice and success of virtual luxury garments and accessories. Digital fashion has no creative limits, there is no force of gravity, there are no places or barriers, and at the same time we owe to Karinna Nobbs the famous phrase that we see as the motto of digital fashion: "Just because something is not physical does not mean it is not real". In fact, Karinna Nobbs sees video games and metaverse virtual realities as a next cultural trend. The platform allows you to choose and wear the clothes offered for sale and post

them directly to your social media accounts. All you have to do is upload a full-length photo of yourself in a very simple JPG format, upload it and see the dress purchased directly on your body. Digital fashion conceived in this way allows fashion designers to express themselves, even the most emerging ones who, taking advantage of the decentralized structure, can be more independent. Moreover, given the attention to the issue of sustainability, The Dematerialised platform and the projects it hosts within it, has started a collaboration with Re:Earth to plant mangroves in Madagascar that are able to absorb CO2 up to 4 times more than other trees. The process of innovation has already begun and the goal is that in a few years at least part of our wardrobe could be digital.

DIGITALAX L BRAND NEW PROTOCOL DEDICATED TO FASHION

This protocol describes itself as a digital fashion toolkit based on Ethereum blockchain. It is based in San Francisco and was founded by Emma-Jane MacKinnon-Lee. A 22-year-old CEO with the idea of revolutionizing the assets of the metaverse in mind.

Digitalax deals with VR, Games, digital assets, that is to say everything that is disruptive in the new world of NFT, a digital environment that for young and very young people is more and more alive and actual.

Digitalax's interest in digital fashion in collaboration with Youcanevent intends to bring digital fashion to conquer a really wide and well established market segment that of the metaverse to allow everyone who wants it to express themselves in game, through digital reality and in every other digital way

possible through what they wear.

Thanks to the adoption of Polygon, the network that supports Ethereum, Digitalax is creating an entire ecosystem of games, VR and metaverse that can communicate with each other. It is thus possible to move through all the games, face all the metaverses always with the same avatar, always with the same well defined high fashion style.

The project is launched globally and there are over 30 3D fashion designers who have decided to join based in:

- Europe.
- United States.
- Africa

The intent is to issue hyper-realistic digital fashion NFTs. Success for the protocol came quickly: at the mid-October launch 18 ERC-721 digital fashion NFTs reached a total sale of 35 Ethereum.

Digitalax has created a true live market

ecosystem where any collector and gamer can bet on high fashion for their avatar and go all out, in metaverse, with the true expression of themselves. The run up to this live market has been so interesting and their success so high that they have managed to create Gatekeepers: true ambassadors of style through the games of rare e-streamers, champions of e-sports who bring Digitalax high fashion across all digital worlds:

- Arjay.
- Xenotech.
- Takai X Takane.

What Digitalax is carrying out is an unprecedented revolution, breaking down virtual barriers by creating entire worlds capable of communicating with each other. This aims to change not only the fashion, but the very way to understand the e-sports.

UNXD

This marketplace was born during the summer of 2021 with the intention of becoming one of the leading places to sell NFT-made luxury and culture. The target of this particular auction space is to provide ambitious collectors with the best items and digital experiences.

UNXD is already born with a wide advantage over several competitors within the industry as its two founders are:

- Shashi Menon.
- Nicky Gonzalez.

Both co-founders of Nervora, the publishing and communications agency founded in Dubai in 2009, which manages, edits and produces the titles: Wired and PopSugar Middle East and Vogue Arabia.

Thanks to his innovative ideas and collaboration with the Polygon UNXD protocol and framework, he was able to

launch himself into the NFT world as a heavyweight by hosting Dolce and Gabbana's digital fashion debut with the NFT Genesi collection.

Dolce and Gabbana is one of the most important fashion houses in the world and the collection put up for sale on the UNXD marketplace reached sales of over $6 million.

METAJUKU

Metajuku is an interesting marketplace, a marriage of visions that combines virtual gaming, the immersive experience of a marketplace and fashion.

Inspired by Tokyo's Japanese fashion district Harajuku, this marketplace is a true shopping district built by Republic Realm on Decentraland. Metajuku is built precisely to recreate a fashion district with shops lining a long central pedestrian space.

The coordinates that the digital avatars will have to use to travel to this beautiful place of high fashion and streetwear in Decentraland are: 94, 21. The project was designed and built by architect Martin Guerra in collaboration with the team of developers from Republic Realm who brought their knowledge of 3D real estate and digital game development.

Having their stores in this fashion district are

two well-known digital brands:

- DRESSX
- Tribute Brand.

Tribute Brand wanted its store to be designed by the Zagreb-based architecture studio Biro. This original marketplace is extremely important because it opens the door to a whole new way of understanding the purchase of fashion NFT: today collectors and all enthusiasts will have a real neighborhood to wander around, shops to visit just like in offline life, thus offering not only fashion collecting but also a certain kind of experiential gratification. Metajuku anticipates that more and more fashion ateliers will want to have their own shop to visit alongside the pioneers who are revolutionizing the way we understand fashion.

IMVU DRESSES AVATARS IN

HIGH FASHION

The 3D social platform founded in January 2021 and is a simulation game on the blockchain similar to The Sims or Second Life. Here, players can design, inhabit and interact with virtual worlds. The platform is run by Together Labs in Silicon Valley and its technological architecture is very similar to social media with the difference that here cryptocurrency has been implemented for all aspects of the ecosystem. Based on the Immutable X protocol on the Ethereum blockchain, co founded by Robbie Ferguson, the game now allows you to do several things, such as having the user's avatar wear an NFT of a dress from the most famous designers. The combination of the exclusivity of high fashion in the physical world and the unlimited creativity of the metaverse gives users and designers a new way to explore the emerging NFT space. Designers can then offer NFTs that can include accessories or complete outfits for virtual skits in order to

amplify brand presence, get recognized and advertise.

FOUNDATION CLOTHIA

Foundation Clothia is an interesting and unique marketplace, born in February 2021. The ecosystem, based on Ethereum, works with its own cryptocurrency: Clothia Coin.

Founded by:

- Kayvon Tehranian. From San Francisco he is in charge of leading, as CEO, Foundation Clothia.
- Elpizo Choi. From San Francisco, he runs the engineering department.
- Matthew Vernon. From Sydney he is the chief design director.

What makes this marketplace interesting, on an international level, is its particularity: Clothia is in fact a company that for years has offered the international market high quality garments, signed by emerging fashion designers at affordable prices. With a wise use of social networks and providing with its e-commerce the opportunity for young artists

to explore and sell in the world Clothia has conquered its portion of the market and then decided to expand its user base to the NFT world by creating Foundation Clothia and its own cryptocurrency.

Foundation Clothia works in exactly the same way as the traditional marketplace maintained by the company, but provides the ability for artists and 3D renderers to create their own fashion and NFT items and put them up for sale. What's unique about this marketplace is that Clothia is the first traditional fashion house to launch its own NFT store and cryptocurrency.

Since its market launch, this marketplace has brought NFT fashion designers dropping on Foundation a revenue of $148,881,246, 28 million and has proven that fashion NFTs can also be a profitable marketplace for fashion houses and fashion companies that have already been operating in the traditional industry for years and have no intention of abandoning it.

NEUNO

Neuno is a digital fashion marketplace in NFT launched in the summer of 2021. CEO, Natalie Johnson, who is also the founder of the platform, said that Neuno's aim is to become the universal 3D wardrobe that fits everything. The Sydney-based start-up, is a social media style platform where you can dress up your avatar with purchased NFTs and use them in various ways. Unlike other marketplaces, Neuno works directly with brands. In this way, it aims to ensure a premium user experience, reassuring buyers about the authenticity of their purchases.

Among the most interesting features of this fashionable marketplace is the built-in possibility for customers to buy NFT with their credit cards, which removes the barrier to entry of having to own cryptocurrency. An interesting solution that several other realities should start exploring.

DRESSX NFT

DRESSX was founded in 2020 co-founded by Daria Shapovalova and Natalia Modenova. The two women entrepreneurs also co-founded More Dash, a public relations and purchasing agency and collaborated on the project created and wanted by Daria Shapovalova, creative director and founder of: Mercedes-Benz Kiev Fashion Days. This fashion house in an investment round of July 2021 raised $2 million. This is because DRESSX has established itself as one of the most important platforms for digital fashion and gathering artists and designers from around the world in 3D. Open to any kind of collaboration the company works on unique limited edition garments that users can see, view, try on in Virtual Reality via dedicated IOS app and then decide to buy.

To do so, all they have to do is choose the garment, send a photo and wait for the project

to be processed: within 3 days they will receive a digital photo while wearing the garment.

Today this fashion house also sells NFTs on external marketplaces: with the collaboration of Crypto.com one of the leading marketplaces within which trading and exposure of NFTs creates its own marketplace.

The union therefore of one of the most prominent digital fashion houses and one of the most active networks and marketplaces of the moment has born a portal that could determine the advent of a new golden world of NFT Fashion. DRESSX NFT was launched on Crypto.com on August 29, 2021 with a virtual clothing collection inspired by Elon Musk and his SpaceX and has partnered with Farfetech to pre-order many of its fashion clothes.

BITSKI

Bitski is a new kind of marketplace, born in 2018 in San Francisco, aims to become something very similar to what Shopify is for e-commerce, but for the NFT world.

Founded by Donnie Dinch and Julian Tescher, this marketplace has a very solid idea behind which Bitski takes the digitization of the world and the world to another level and aims at mass production, at an irreversible transformation not only of the digital but also of offline reality. The founders of Bistki promote a democratization of NFT sales that no longer pass through large auction houses or aim mainly at multi-million dollar sales like Beeple, but are within the reach of all artists and those who want to monetize their presence on the web.

This marketplace deals with creating personalized showcases for creators, artists and designers. The idea was so innovative and had such a disruptive effect in the digital

world that it raised over $19 million in a single investment round, bringing the funding raised so far to the remarkable figure of $23.4 million.

Among the investors:

- Serena Williams.
- Jay-Z.
- Winklevoss Capital.
- Galaxy Digital.
- 3LAU.
- Kindred Ventures.

The start-up offers creators a really interesting multiplicity of subscription plans to power NFT storefronts that are completely unique and bespoke. Among the first brands to open their own storefront on Bitski was Adidas with a series of exclusive sneakers.

DIGITAL NATIVE FASHION HOUSES

The world of NFT is penetrating fashion so closely that new branches are opening up every day. Today it is possible to wear digital clothes that are bought as skins and for investors, creators and designers a whole new world of fashion is opening up. The transformation and innovation of NFTs has led to the creation of real fashion houses, where designers from all over the world create unique 3D clothes in NFTs.

THE FABRICANT: THE FIRST ENTIRELY DIGITAL FASHION HOUSE

The Fabricant is the world's first digital fashion house, based in Amsterdam in the Netherlands, born from the meeting of personalities such as:

- Kerry Murphy.
- Amber Slooten.
- Adriana Hoppenbrouwer.

He manufactures and sells luxury NFT, unique clothes in collectible and high value

NFT such as, for example, Iridescence. The Fabricant creates together with international designers and NFT producers and sells on all the most important platforms in the world from Decentraland to Binance. The idea of this digital haute couture house is to occupy a very particular intersection between technology and fashion with the declared aim of demonstrating that exclusive clothing does not need to be physical to exist.

To date: Puma, Adidas, Napapijri and Tommy Hilfiger have chosen this fashion and design house as a partner for their exclusive NFT collections.

TRIBUTE BRAND

This fashion brand was born in 2020, at the height of the pandemic, in Croatia. The intention of this digitally native haute couture house is to generate a digitalized and contactless fashion environment. Leading Tribute Brand are two figures:

- Gala Marija Vrbanic. Ceo and Founder.
- Filip Vajda. the digital fashion designer.

This fashion house puts customers first by including them in the creative direction of the garments, in fact thanks to TB Taylor Made Cyber Services, it allows anyone to send in an idea that will be transformed into a bespoke and exclusive digital dress. Thanks to the technological innovations also Tribute Brad aims to create digital clothes made to measure, to eliminate the problems of fit by conceiving an egalitarian and frank fashion. Tribute Brand puts fashion at a higher level thanks to the possibility to try the dress on by sending a simple self-timer and to wear it every day in augmented reality thanks to the dedicated app. The collections created are all unique, exclusive and above all limited and can be bought directly on the website of the fashion house with a price ranging from 28 to 700 dollars.

NFT & FASHION: RISKS AND OPPORTUNITIES

As we have seen, projects and marketplaces dedicated to the NFT fashion industry are diverse and expanding. Beyond those who talk about fever and

bubble, NFTs have given an impetus to the change towards digital as never seen before. The fashion world was already ready for the momentous leap, with early experiments with augmented reality, video game skins and autonomous platforms. What it has found with NFTs is instead a correspondence as far as luxury is concerned: NFTs in fact meet the primary requirements of a luxury good, namely uniqueness, scarcity, certification and the possibility of investment. For this reason brands have immediately seized the opportunity shown by blockchain technology that eliminates intermediaries, unhinges old systems and gives a considerable creative boost to mash-ups with crypto and emerging artists.

Fashion shows are becoming increasingly digital, and the idea of building a parallel world with exclusively digital tools is enticing and gives rise to several exciting new scenarios. The perspectives are vast and unimaginable, even just in terms of the possibility of having an NFT certificate of a

physical luxury garment opens the door to innovation, such as the tracking system that allows the user to know the entire production chain of the product, or possibly the previous owners of the garment used. Here arises another interesting opportunity for the use of NFTs in the fashion industry as a support for second hand sales. Even if the blockchain carries with it a still difficult and complex environmental reputation, it is possible to demonstrate how this can be a not indifferent solution: as Arianee did by creating digital passports for physical goods. According to co-founder and CEO Pierre-Nicolas Hurstel, the passports are more than just certificates of authenticity, they are also documents that help customers secure their high-end items, keep track of repairs and access the features the brand has to offer. They'll also come in handy when one day you want to get rid of that nearly-new item and transfer ownership: seamless sustainability.

Luxury is based on exclusivity: people don't buy for an imminent need, but rather they buy

luxury goods to build an identity, to affirm a status, to become part of the culture that the brand has built for its customers. But what drives people to invest in NFTs rather than fashion itself? Simply because the virtual economy is one of the greatest economic opportunities of these and future generations, as well as a unique opportunity for fashion companies. Buying digital goods is not a new thing anyway: players have always been buying items, products, skins, weapons, land, housing, space and whatever else on video game platforms. Online avatars must look good, must reflect our tastes, interests and why not? Dress even better than us in offline reality, differentiating us and potentially making us better.

Some platforms allow us to choose an item of clothing in NFT, purchase it, upload a photograph of ourselves and wear the digital outfit. The photo can be shared instantly on social, the purchase can be quick and secure, and you can enjoy digital fashion in your offline life. For some, NFTs do nothing more

than transform digital garments from a sophisticated form of marketing to marketable design objects. This is due to the proliferation of Instagram influencer culture and the growing consumerism encouraged by social media. By dressing avatars in digital clothing, innovative and unthinkable skins can be created, leaving full freedom for creative expression. This represents an excellent opportunity for monetization: platforms that allow people to wear digital clothes, such as The Fabricant or DressX, are growing in popularity also thanks to the possibilities they offer to show off different outfits with a minimal impact on the environment. Less water used, less textile waste, no shipping, a cleaner and digitalized supply chain that cleans up the fashion industry and overtakes fast fashion and puts an end to waste.

But NFTs also attract a new customer base by tapping into a new group of investors. Augmented reality is already an integral part of society. So the market constellations for

brands are endless, and as we can already see, the digital market will occupy much of the fashion world. And while avatars and video game skins may appeal to a younger generation, NFTs from luxury fashion houses could attract a more mature and established clientele who are crypto-rich and crave rare and exclusive collectibles.

The reality of fashion and luxury NFTs is in complete expansion and it is no longer possible to say that they are a simple bubble or to think that their development will not follow an exponential curve of interest worldwide.

The prevailing doubts, today, concern the international legislation as there are still no clear and unambiguous rules on the use of cryptocurrencies are still perplexing about what might happen if some nations decide to curb the expansion of cryptocurrencies. This is especially after the recent interest of the Chinese government on Binance, which remains a force at the international level, and the first case of inside trading on NFT made

by an employee of OpenSea.
The news went around the world, yet it wasn't really a risk as OpenSea's blockchain obviously recorded every transaction and it was easy for the platform to discover the scam, fire the employee and fix the situation.
Even in the case of authenticity, the risks are becoming lower and lower as it is often the brands themselves that offer NFTs for sale directly on marketplaces, while the brands themselves have joined together to create dedicated consortia, such as Aura led by LVMH. The perspectives are manifold and safeguard fashion in the strict sense, but also the actors involved, such as models, photographers and stylists. The NFTs, although in an experimental phase, are already dictating the rules for the fashion of the future.

FINAL THOUGHTS

Virtual products are still much unexplored territory for fashion and luxury brands, and while the idea of developing and selling intangible products is an irresistible temptation, it also poses the potential risk of diluting and reducing a brand's real-life appeal and value.

Certainly NFTs are a disruptive trend in various industries and on the other hand the fashion and luxury industry takes a more conservative approach against what could jeopardize its growth and value, but at the same time plans to embrace the digital and virtual world have been steadily accelerating. Enthusiasm over NFTs reached its global peak in March 2021, when a JPG file titled *Everydays - The First 5000 Days*, sold for $69.3 million, a record price for a work of art

by artist Mike Winklemann, known as Beeple. A Reuters report found that the NFT market rose to new heights in the second quarter, with sales of $2.5 billion this year. In general, it is believed that NFTs may find more of a place within the younger generation who are making clothing a status symbol even in virtual games as well as on social media creating a mix of bold branded product display and lifestyle. And so, here is Dolce & Gabbana announced that it would launch an NFT collection titled Genesis, Gucci was one of the first luxury brands to develop digital clothing and recently auctioned off an NFT Video for $25,000, while British jeweler Asprey is planning to launch NFT and many other brands are following suit.

But why are brands so attracted to NFTs? Maybe it's about the movement around them? Or to show themselves cool and up to date? Or is it just a frenzy fuelled by the fear of being overtaken by others, of being beaten in

this potential market?

In the case of NFTs, the investment risk does not lie in the best-known brands, because the value is defined by what the buyer is willing to pay for them. The risk is that it changes the dream of luxury achieved so far: fabric textures, smells, details, uniqueness.

The big fashion brands should remember that when they create NFT they are creating an experience that is however unique, innovative and creative. Able to involve also the five senses precious for the luxury industry and not only. The real revolution could happen through an evolution of what you already have, entering the deep sense of the crypto world, inventing something completely new that has the purpose of enriching the business allowing buyers to continue to dream, experiment and live new exciting experiences.

What will be more complex to do is to reverse the trends on social media by creating

a sustainable alternative to fast fashion where instead of scrolling through an online store feed and making impulse purchases, you create a more engaging experience directly with the brand by exploring a completely new and tailored virtual space. It must be considered that today luxury means a whole new way of creating suitable for digital natives who now represent a large part of buyers. For younger consumers, the line between avatar and physical person is getting thinner and thinner, digital currency is increasing and blockchain is facilitating exchanges, eliminating middlemen. Digital is simply reshaping the way luxury is conceived and purchased across generations according to a study by Claudia D'Arpizio and Federica Levato. According to the research, to succeed in the next decade, brands will need to refocus on their customers to predict, improve, anticipate and meet their needs. The younger generation will be the key. Suffice it to say that today 70% of luxury purchases are influenced by online interactions, which

means that at least one digital interaction with the brand or product took place before the purchases:

- 14% of consumers aged 18-24 complete their first luxury purchase online.
- Digital traffic to luxury brand websites is twice as high as in-store visits.

Some argue that fashions can often be influential: this can overestimate the scale and speed of change in the short term, when in fact it underestimates the scale of transformation that can occur in the long term. The future of the luxury sector, regardless of the frenzy implemented by NFTs, is already outlined and has a clear trend in a hybrid future, between physical and digital.

There is a concomitance of elements, i.e. the digitalization of fashion or digital fashion, NFTs and new metaverse, the combination of these elements brings out new perspectives

for the future market because the phenomenon is becoming more and more widespread. Just because something isn't physical doesn't mean it isn't real: for every brand, the NFT one is a real challenge, that's why many tend to create their own platform: to be in control and win the users' trust.

Now, the main obstacle to the creation and diffusion of digital fashion remains the fact that you have to create other places besides video games to wear your digital clothes, the ideal would be to create events like the digital Met gala and then there can be a strong surge of digital wardrobes because there will be dedicated places to show off your clothes.

The fashion industry has always been at the forefront of many other sectors. It has often led the way with respect to new possibilities and markets. Fashion is not only luxury, but it is often high fashion that dictates the direction and what we will like to wear and live in the future. Perhaps this is why of all the fashion design industry is the one that has

not only embraced NFT more pervasively, but is using it to redefine the rules of luxury internationally, suggesting innovative ways more than others to own and use virtual objects.

CRYPTO DUKEDOM

To know us a little more

We believe in the crypto world.
Our goal is to make it accessible to all people.
For us, this is the future.
Or rather, the future that is already becoming present.
There are new fantastic worlds, full of opportunities.
There are difficulties, problems to be solved.
As in all things, we know it.
Thousands of people are working to solve them and constantly create new possibilities.
Even now.
We do our part by investing, sharing, and creating value for those like us who have approached all this inspired.
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This book is printed-on-demand to reduce excess production. The ink is chlorine-free, and the acid-free interior paper stock is provided by a supplier certified by the Forest Stewardship Council.

We chose to print in black and white on cream-colored paper made with 30% post-consumer recycled material.

We choose minimalism and try to select the essential.

We believe you appreciate and share our choices.

We trust that you, together with us, will continue to revise your daily practices to make sure we are doing our part to protect the environment.